

COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
New Solar Homes Partnership)
_____)

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
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SACRAMENTO, CALIFORNIA

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COMMISSIONERS PRESENT

John Geesman, Presiding Member

Jackalyne Pfannenstiel, Associate Member

ADVISORS PRESENT

Suzanne Korosec

Timothy Tutt

STAFF PRESENT

Sanford Miller

Bill Pennington

ALSO PRESENT

Rob Hammon

ConSol

California Building Industry Association

Aaron Nitzkin

Old Country Roofing

David Hochschild

PV Now

Gwen Rose

Vote Solar

Ed Murray

Cal SEIA

Chris O'Brien

Sharp Electronics Corp.

Bill Kelly

PowerLight Corp.

Kirk Uhler

Solar Power, Inc.

ALSO PRESENT

Joseph McCabe
Energy Ideas, LLC

Glenn Harris
SunPower Consulting

Mark Roper
Schott Solar

Mark Johnson
Golden Sierra Power

Jan McFarland
Americans for Solar Power

Adam Detrick
PowerLight Corp.

Oliver Koehler
Sun Power Corp.

Bruce Bowen
Pacific Gas and Electric Company

Mike Keesee
Sacramento Municipal Utility District

Robert Scott
California Home Energy Efficiency Rating System

Bill Brooks
Brooks Engineering
KEMA

David Bruder (via teleconference)
Southern California Edison Company

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P R O C E E D I N G S

9:03 a.m.

PRESIDING MEMBER GEESMAN: This is a workshop of the California Energy Commission's Renewables Committee on our Committee draft guidebook for the New Solar Homes Partnership.

I'm John Geesman, the Presiding Member of the Commission's Renewables Committee. To my left is the Commission's Chair, Jackalyne Pfannenstiel, who is the Associate Member of the Commission's Renewables Committee.

To her left, Tim Tutt, her Staff Advisor; to my right, Suzanne Korosec, my Staff Advisor.

Staff has done, I think, a very good job of pulling together the draft that we put out for public comment. There are a lot of details still to be tied down. And I want to emphasize to everyone participating today that there are a lot of details still to be pulled down.

What we're trying to do is move to a convergence of views, and where necessary, when a convergent doesn't exist, the Committee views that will get us a finalized guidebook in place by the end of this calendar year.

1 So, I invite each of the commenters
2 today to let us know your views on details that
3 you either consider to be in error or too
4 ambiguous to prove workable. And we will have an
5 ongoing back-and-forth over the course of the day
6 to try and flesh out where we should go with
7 respect to some of those details.

8 At our request Tim Tutt has developed a
9 list of the most salient issues from his
10 perspective. In thinking about it and reflecting
11 on some of the news over the weekend, I have a
12 couple of additional questions, as well.

13 So this is likely to be a little bit of
14 patchy, somewhat uneven workshop. But those of
15 you that have become aficionados of our process, I
16 can assure you, will enjoy it.

17 (Laughter.)

18 PRESIDING MEMBER GEESMAN: Commissioner?

19 ASSOCIATE MEMBER PFANNENSTIEL: Let me
20 just point out that the list of issues that Tim
21 put together are in a memo that I believe are on
22 the table in the back, a two-pager, if people want
23 to grab a copy of that.

24 They're not, as Commissioner Geesman
25 said, all of the issues that we'll address today.

1 And I think each person here may have her or his
2 own questions or ways they want to revise the
3 draft guidebook.

4 But they do lay out some of the number
5 of problems that we're confronting in some of the
6 areas that we've heard from others as being of
7 major concern.

8 So, we certainly invite and encourage
9 your input on these questions, as well as any
10 others. So, with that, Commissioner Geesman.

11 PRESIDING MEMBER GEESMAN: Okay, why
12 don't we start then with staff presentations.
13 Sandy.

14 MR. MILLER: Thank you. My name is
15 Sandy Miller; I'm with the customer education in
16 the renewables energy program.

17 What I'm going to present today, the
18 comments that the Commissioners just said, about a
19 couple pages of additional issues, are not
20 necessarily in the guidebook that I'm going to be
21 presenting. My presentation will be on the
22 guidebook that you all received that was posted on
23 October 30th.

24 My overview basically will be looking at
25 the Committee guidebook as it stands right now.

1 I'm going to go through the changes that occurred
2 in the guidebook from the September version to the
3 guidebook that we have today. And finish off with
4 issues and comments and a timeline that we're
5 expecting through the process.

6 As far as the timeline, basically we had
7 an October 5th workshop and we had the staff's
8 version of the guidebook presented at that point
9 in time. After the workshop there was, I believe
10 it was October 12th, comments were due, written
11 comments. And we took those comments and
12 incorporated, as according to the direction of the
13 Renewables Committee. And so this is what we have
14 today in the guidebook.

15 The Renewables Committee and the staff
16 are certainly interested in comments and
17 suggestions on the guidebook, plus other issues
18 that will probably be coming up during the
19 workshop today.

20 We have a fairly short timeframe that
21 we're looking at. Once we get through the
22 workshop today and incorporate any additional
23 comments into the guidebook, we need to get this
24 thing posted on or before November 13th, which is
25 next Monday, in order to meet a 30-day review

1 period, as noted by Commissioner Geesman in the
2 last workshop, so that we would have an adoption
3 of that guidebook or close to that by December
4 13th.

5 Changes from September guidebook. In
6 the September guidebook we had one incentive
7 level, and that was \$2.50 a watt. And that's
8 where the EPBI case expected performance-based
9 incentive. Bill Pennington is going to be
10 spending some time in his presentation on that.

11 What we have today is we have a \$2.50
12 per watt basecase; and a \$2.60 watt for builders
13 installing solar as a standard feature. I'll go
14 into those in a little bit more detail.

15 The base incentive would be for the
16 reference case only. A reference case is the
17 particular place in California that that incentive
18 would be good for, assuming, of course, it's
19 adjusted by the EPBI.

20 It would be applicable to custom homes,
21 developments under six homes, developments where
22 solar is offered as an option. And for that
23 incentive you would get a -- applicants would get
24 an 18-month reservation.

25 Now, for builders committing to offer

1 solar as a standard feature on their developments,
2 we are proposing \$2.60 a watt. This is a
3 reference case again; and as I mentioned, Bill
4 will go into more detail on that. This would be
5 for developments of six or more homes where the
6 builder commits that 90 percent of the homes will
7 have solar. And for that, a 36-month reservation
8 would be allowed.

9 Another point about the difference
10 between the 2.50 and the 2.60 is that 10 cents
11 differential would apply throughout the program
12 term. So, if we start at 2.50/2.60, the next time
13 the reservation goes down, it'll be -- let's say
14 if it goes down to 2.25, the higher one will be
15 2.35. So, that 10 cents differential will
16 continue through the period, the program period.

17 This gives you an idea of the volumetric
18 trigger mechanism. We're sticking with the
19 Commission's proposed; staff proposed from the
20 last time volumetric trigger mechanism. There
21 were a few comments last time about this is a
22 volumetric and not necessarily a calendar-based
23 mechanism. Builders or applicants may not know
24 when the reservation incentive level is going to
25 drop. And there were some suggestions about

1 providing some advanced notice.

2 So we have included that in the
3 guidebook, that there would be an advance notice
4 when we anticipate the incentives to drop. The
5 exact timing of that notice is still to be
6 determined. But we can have something in there.

7 For the 36-month reservation where solar
8 is a standard feature, the initial reservation, a
9 builder would provide either the tentative or the
10 final subdivision map; an estimate of the solar
11 costs from a registered solar retailer; and
12 expected performance-based incentive calculations
13 for that development.

14 Now, with the 36-month reservation we
15 are proposing that there would be at least a
16 couple checkpoints along the way. The purpose
17 would be to make sure that the reservation is on
18 track; and to potentially free up funds if there
19 is no progress.

20 The first checkpoint would be 12 month.
21 There was some, a few comments about, you know,
22 the 18-months checkpoint which we had in the
23 earlier guidebook may be too far down the road,
24 and we would like to have some information on the
25 progress of that reservation a little earlier on.

1 So it was decided that a 12-month checkpoint might
2 be more appropriate.

3 At that checkpoint the builder would
4 have to provide a financial commitment on the
5 solar equipment and/or installation -- not and/or,
6 but potentially installation, too. So they have
7 to have some kind of a financial commitment to
8 either purchase or intent with some sort of
9 minimum down payment on that to show that they are
10 committed.

11 And also they would provide a plan
12 buildout for their development, when they're going
13 to be putting solar onto their homes; which homes
14 would be earlier, but that would provide us more
15 information about at month 12 how they're
16 progressing.

17 There's another checkpoint, checkpoint
18 24. And that's pretty much a status check. By 12
19 months they've pretty much given us all the
20 information that they have, assuming the
21 reservation is still ontrack. The 24-month is to
22 make sure that they're still online to complete
23 their project.

24 The 18-month reservation basically goes
25 back to the base incentive for the \$2.50

1 reservation. And that would apply to the custom
2 homes. Again, developments where it's under six
3 homes, and where solar is an option is an option
4 in a development. There are no checkpoints on
5 that one. The process is pretty much the same as
6 in the existing guidebook that we have now for new
7 homes. So they basically would provide that same
8 information that we have in the current guidebook
9 as far as getting a reservation.

10 Other changes to the guidebook. We've
11 tried to clean up the language on the warranty to
12 make it more specific to the PV system only.
13 There were some questions and comments about that
14 the earlier guidebook was a little bit too
15 general; and some people were concerned that it
16 might cover -- might be construed to cover more
17 than just the PV system. So we tried to clean up
18 the language there.

19 The 100 percent of expected load, we
20 just clarified that basically. It was a little
21 bit nebulous there. And so we tried to get that
22 cleaned up a little bit more.

23 In this guidebook edition here, we have
24 removed the restriction on utility ownership, so
25 utilities could potentially own these systems.

1 And another change that we have put into the
2 guidebook, the latest guidebook, is that solar
3 water heating may be included to support the
4 higher efficiency requirements at tier one and
5 tier two.

6 The payment process really didn't get
7 changed from the last time. I'm putting the slide
8 back in just to show you we really didn't have any
9 difference, you know. After the builder is
10 finished with the home or homes, they present the
11 final invoices. They have to provide information
12 that it's in compliance with the at least 15
13 percent above title 24; proof of interconnection
14 with the utility; building permit signed off; and,
15 of course, field verification prior to payment.

16 Comments and suggestions were
17 particularly interested in incentive levels; \$2.50
18 for the base; \$2.60 for solar as a standard
19 feature. We're still interested in volumetric
20 trigger mechanism comments.

21 We have the two reservation periods; the
22 36-month reservation period and the 18-month. We
23 have a lot of the requirements for each one of
24 those in there. We're interested in comments and
25 how builders would perceive these. Are they

1 compatible with their perspective on the
2 reservation process and their building.

3 The other comments that we're soliciting
4 for is we have, where solar's offered as an
5 option; and we're restricting the reservation to
6 10 percent of the total units on the development.
7 So, if a builder, for example, would say they have
8 100 homes and they're only going to offer solar as
9 an option, the guidebook basically says that they
10 would only be allowed a reservation for ten homes
11 in that development. That we would only reserve
12 for ten homes, the equivalent of that. So, we're
13 interested in comments on that.

14 Over-reserving. We've had, in the
15 previous guidebook, and we have in the current
16 guidebook, the over-reserving of each block. We
17 would anticipate, based upon the ERP experience,
18 that there will be reservations that get canceled
19 or expire. And to compensate for this, to make
20 sure that we -- we want to make sure to allow for
21 some reservations that get canceled.

22 The previous guidebook and this
23 guidebook have a 25 percent over-reservation for
24 each block. So, this is our way of trying to
25 insure that we get as close as possible to the

1 amount of volume that we expect to get for each
2 incentive level.

3 Timeline. We have a very short timeline
4 on this. Comments are due tomorrow, COB. We plan
5 to post the guidebook next Monday.

6 Affordable housing is -- what we have in
7 the guidebook we're anticipating changes to the
8 affordable housing element in the current proposed
9 guidebook. And those changes for affordable
10 housing will occur later, probably we're hoping
11 early into next year, at the very first part.

12 We're anticipating an adoption date in
13 the business meeting on December 13th, and
14 planning to implement the program on January 2007.

15 So that concludes my presentation. And
16 I believe Bill Pennington will be up next here for
17 his.

18 PRESIDING MEMBER GEESMAN: Sandy, before
19 you go, does the guidebook address the issue of
20 the ownership of any RECs associated with the
21 solar installation?

22 MR. MILLER: No, it doesn't; not to my
23 knowledge.

24 PRESIDING MEMBER GEESMAN: You may not
25 be the right person to ask, but my understanding

1 that at some point late last week a proposed
2 decision was issued at the PUC that would address
3 REC ownership, at least for that portion of the
4 program that they administer. Are you familiar
5 with that?

6 MR. MILLER: Vaguely.

7 PRESIDING MEMBER GEESMAN: I'd like to
8 add that REC ownership question to the list of
9 issues that would be helpful to address today. It
10 strikes me as a rather peculiar recommendation to
11 come from the PUC Administrative Law Judge
12 Division that the RECs be given to the state's
13 investor-owned utilities. And I'd just like to
14 take that up in the context of this guidebook.

15 MR. MILLER: Okay. Thank you.

16 MR. PENNINGTON: Good morning; my name
17 is Bill Pennington; I'm the Manager of the
18 buildings and appliances office at the Energy
19 Commission.

20 And what I wanted to cover today was
21 just maybe some of the more significant updates of
22 the more technical related aspects of the program
23 proposal in the Committee draft guidebook. And so
24 these are updates.

25 And what I've done here is I've

1 identified what is being changed in red, so they
2 pop out here on the screen.

3 One of the first things I want to talk
4 about is we got comment from a couple of parties
5 that were concerned that the reference system had
6 a location of Sacramento, which was a relatively
7 well performing choice among all the climate zones
8 in the state. And PowerLight, in particular,
9 suggested a middle location instead.

10 So we have changed our proposal to be
11 based on using San Jose as the reference location
12 and using the weather data that is associated with
13 climate zone 4, which is basically the south
14 peninsula area down the state in the coastal
15 valleys that are somewhat inland. The latitude is
16 based on San Jose.

17 This chart does a new comparison of what
18 the time-dependent valuation and kilowatt hours
19 values would be using climate zone 4 as a
20 reference here. So that's assigned a value of 1,
21 and the other climate zone values are shown
22 relative to that.

23 We previously had been proposing climate
24 zone 12. And you see that climate zone 4 is
25 actually the median climate zone of all the

1 climate zones. And, in fact, right around climate
2 zone 4 there's other climate zones that are very
3 close, climate zone 3, climate zone 15; there's
4 climate zones that are very close. So this
5 represents right in the middle of the range of
6 climate zones in the state.

7 Another comment that we received was
8 related to the California flexible installation.
9 And in the previous version of the guidebook we
10 used the terminology that we would be using a
11 conservative value of the range of impacts that
12 would be associated with compliance with the
13 California flexible installation.

14 Just to remind you what we're proposing
15 here for the California flexible installation is a
16 criteria that allows a range of installations to
17 be used; a range where the variation in system
18 performance is pretty tightly tight in that range.
19 And allows, you know, at the reservation point the
20 assumption for the California flexible
21 installation to be used for any system that falls
22 within that range. So the range is azimuth
23 between 150 and 270; roof pitches between 4 and
24 12, and 7 and 12; and the assumption that the
25 minimal shading criterion is met.

1 So, when we have been talking about
2 conservative estimate, we had been using 270 as
3 the assumed representative value for the range.
4 And you can see that the reference home is based
5 on 180, so you can see for this range between 150
6 and 270 the reference home, which is due south, is
7 not the best incentive. In fact, going farther
8 west from there to 210 and 220 actually results in
9 a higher value.

10 So compared to the reference system, a
11 system that was oriented a little bit west of
12 south would get a higher incentive than the
13 reference system.

14 But we were trying to represent that
15 whole range in an easy-to-use approach. And we
16 had been using 270. And we had been calling that
17 conservative. And the suggestion by a couple of
18 parties was that we probably should be more in the
19 mid-range.

20 So what we're proposing at this point is
21 to use 170. And that's almost dead in the middle
22 of the 150 to 210. And actually is not that much
23 lower than the reference system of 180 as you can
24 see there.

25 PRESIDING MEMBER GEESMAN: So will that

1 then reduce the range of incentive fluctuation?

2 MR. PENNINGTON: I think the reason this
3 comment was made is that we're trying to have a
4 simple process. At the reservation state we have
5 -- there may be limited information about the
6 exact orientation of the roofs, but, you know,
7 there's an expectation that virtually all homes
8 can get into this range.

9 We had proposed a conservative estimate
10 of what you would get if you were in that range
11 and --

12 PRESIDING MEMBER GEESMAN: Which
13 potentially would have allowed a wider degree of
14 variability in the size of incentive.

15 MR. PENNINGTON: Yeah, the concern was
16 that people might discover that that early
17 estimate they made was actually pessimistic, too
18 pessimistic relative to what their actual system
19 might be. And that might drive them to
20 recalculate at the end. And we might be kind of
21 creating an incentive for more process --

22 PRESIDING MEMBER GEESMAN: Right.

23 MR. PENNINGTON: -- for the whole
24 program, more burden for them. If we bump the
25 default level for this range up a bit, you know,

1 that would be, as you can see, it's pretty close
2 to 180. So, you know, the diminution away from
3 the reference system is minor.

4 PRESIDING MEMBER GEESMAN: Right.

5 MR. PENNINGTON: Perhaps there would be
6 a lot less incentive to continue to be re-
7 analyzing these systems.

8 PRESIDING MEMBER GEESMAN: Thank you.

9 MR. PENNINGTON: Okay. This is a graph
10 that -- I went backwards, sorry -- don't want to
11 present that again.

12 Also wanted to report on the development
13 of the PV calculator. We've presented visuals of
14 what that calculator looks like at the last two
15 workshops. And so, you know, I think people who
16 came to that have a feel for it.

17 This is just talking some about the
18 status. The programming of the PV calculator has
19 been finished. We're in the alpha testing process
20 right now. There were particular people who
21 volunteered to try out the program. And so we
22 have, you know, with some specific expectation on
23 them to give us good feedback on things that they
24 see that, you know, look funny or, you know, --
25 and help us document bugs if they find any. We

1 have engaged those people to do some alpha
2 testing.

3 And so we've gotten a little bit of
4 feedback so far from that alpha testing. And so
5 we expect the next step will be to be doing some
6 debugging relative to the comments that we have
7 gotten. And hopefully that will be this week, and
8 maybe into the next week we would be done with the
9 debugging relative to the alpha testing.

10 We're also planning to have a little bit
11 broader test of the revised version. And we're
12 interested in anyone that would want to volunteer
13 to be beta testers on the program. Smita Gupta is
14 who's in charge of handling this testing process.
15 And so if you're interested in being a beta tester
16 here's Smita's email address. Let her know.

17 One of the early feedbacks that we're
18 getting is the program should run faster. Our
19 original intent was that we were trying to
20 demonstrate the installation of these algorithms.
21 We weren't trying to create the most elegant
22 program. And so we succeeded wildly on that goal.

23 The program, on a fast pc, can run in
24 about two minutes right now. And technically we
25 have some ideas about how we can make a 20 times

1 speed improvement. And so we started working on
2 that, and we hope to do that this month. So that
3 it would be ten seconds, or something like that.

4 Another area that we've been doing work
5 is related to certification of modules. And we
6 basically have proposed using the international
7 standards to test modules and get the data that we
8 need to run the calculation back through
9 accredited laboratories based on that testing.

10 And we also have, as mentioned before,
11 suggested a more specific configuration for doing
12 NOCT testing for BIPV systems.

13 And that discussion has gone through a
14 fair amount of vetting with manufacturers and with
15 laboratory testers at Arizona State University and
16 Sandia. And, you know, we've had discussions with
17 UL. So, you know, we've had a pretty good vetting
18 process.

19 There's generally consensus that this is
20 a good idea of where the Commission should get to.
21 But that it's time consuming to do some of these
22 tests. So if you have to do these tests from
23 scratch, some modules have already been tested
24 using these test procedures; some haven't.

25 In general, the test configuration we're

1 proposing for NOCT has not been used previously.

2 So there's a sense that more time is needed. And
3 so this proposal is that prior to January 1, 2008,
4 testing that basically has already been done would
5 be usable for determining the values of the
6 parameters that we need for the PV calculator.
7 And so this is just a specific way of specifying
8 that, the two test procedures that could be used.

9 Another area of discussion has been that
10 in general module performance at the production
11 line, flash testing, has a expected range of plus
12 or minus 10 percent. And there's a general sense
13 that unfortunately modules end up at the low end
14 of that plus or minus 10 percent.

15 And so we wanted to insure that the
16 production testing that gets done demonstrates
17 that the modules that are being put on the market
18 correspond well with the certified data that's
19 certified to the Energy Commission. And so we had
20 previously said that all of the modules off the
21 production line has to be at least as good as
22 what's certified to the Energy Commission.

23 And the manufacturers are quite
24 concerned about the notion that California would
25 establish that aggressive of a criteria that would

1 drive their worldwide market. There are
2 discussions going on nationally about the
3 appropriateness of perhaps going to third-party
4 certification in the future. UL is in the process
5 of changing their test procedure. And they're
6 talking about going to a plus-or-minus 5 percent
7 instead of the plus-or-minus 10 percent. So
8 there's things up in the air that the industry is
9 working on, itself, to make changes in this area.

10 And so we view that by having an
11 approach that is expecting that the average will
12 be at least as good as what is reported to the
13 Energy Commission. It's kind of a baby step in
14 this area. It's important; it's hopefully moving
15 away from things clustering at a minus 10 percent
16 variation.

17 So this, on average level, was
18 recommended by PowerLight. A couple of the other
19 manufacturers thought that it was a good idea,
20 also. So, that's the reason for our proposal.

21 Lastly, I wanted to talk a little bit about
22 energy efficiency. The basic tier 1 and tier 2
23 goal structures are the same. Related to both
24 tiers we had previously proposed that for both
25 tiers you expect high efficacy lighting and

1 EnergyStar appliances, for those appliances that
2 the builder provides, to be another criteria.

3 And we got comment back, primarily from
4 the building industry, that maybe that's a bit
5 aggressive. Title 24 is by far the most
6 aggressive building code in the U.S. related to
7 residential lighting. And so we're, in general,
8 getting a pretty good lighting system in homes.
9 And the building industry recommended that we land
10 there instead of expecting that all lighting in
11 the house be high efficacy. So maybe this is an
12 area that we could revisit in the future.

13 The other thing that is important is
14 that since 1982 solar water heating has been an
15 option under the building standards, and has been
16 in our calculation approaches, two years ago the
17 Energy Commission provided a updated version of F-
18 Chart to facilitate calculating solar water
19 heating for standards use. And so that's already
20 in our system in terms of getting credit for that.
21 And it appeared to be unrealized that solar water
22 heating would be viewed as an energy efficiency
23 measure for qualification with either the tier 1
24 or tier 2 savings goals.

25 So that's the end of my presentation.

1 PRESIDING MEMBER GEESMAN: I think with
2 respect to that solar water heating aspect, things
3 haven't turned out the way we expected them to in
4 1982. That may change.

5 I'm going to go to blue cards. First
6 one up is Rob Hammon, ConSol.

7 MR. HAMMON: Good morning; I'm Rob
8 Hammon from ConSol. Good morning, Commissioner
9 Geesman, Chairperson Pfannenstiel. Thanks for the
10 opportunity to provide some comments.

11 I appreciate the changes and updates
12 that have been made. Most of them look like great
13 progress. I want to indicate support for the
14 incentive level of being higher for subdivisions
15 where solar is standard in tier 2 is standard.
16 And I would just -- I have to apologize here. I
17 downloaded the handbook on Wednesday, and
18 apparently re-downloaded the old version. So, I
19 re-read it and --

20 (Laughter.)

21 MR. HAMMON: It was surprising, the
22 limited number of changes.

23 (Laughter.)

24 MR. HAMMON: So some of my comments
25 might be a little bit offpoint, but I'll try and

1 work on that. And I mention that because I want
2 to define what standard would be, and I'm not sure
3 how it's written in the book. So, excuse me if
4 I'm redundant.

5 But standard would be defined as an
6 integral part of the homes offered; and it ought
7 to be at least 50 percent of the home. And I
8 understand it's at 90 percent right now. I think
9 that's really aggressive. We've worked with
10 builders who have done 100 percent; we've worked
11 with builders who have done 20 to 30 percent. And
12 I think a 50 percent goal would be really moving
13 the market and not overly strong.

14 Also want to mention that in the tier 1
15 and tier 2 issues, Commissioner Geesman, you
16 mentioned last time that this is a living program
17 and will be flexible going forward. I appreciate
18 that we've been working with staff and the
19 development of these goals, specifically the tier
20 2 35 percent and 40 percent cooling requirements.
21 I stand behind those in the areas where we've
22 really built homes under these guidelines.

23 There are some places where it may be
24 very difficult, for instance in climate zone 7
25 it's going to be difficult to get a 40 percent

1 cooling reduction, especially with some of the
2 Title 24 assumptions.

3 For instance, my recommendation is that
4 there may be some need for flexibility in how we
5 calculate the savings. For instance, in a couple
6 subdivisions in Watsonville we got the builder to
7 remove cooling as a standard feature in the
8 subdivision, so 100 percent of the homes were
9 highly energy efficient; 100 percent of the homes
10 had solar; 100 percent of the homes had no air
11 conditioning.

12 But within Title 24 rules you assume
13 worst case that they're going to install, as some
14 point, a code minimum air conditioner. And that
15 really limits the ability to take credit for that
16 large change that you made in the builder's plans.
17 So, some things to work out as we go forward.

18 New point. The reservation period, I
19 agree with 36 months. I would make a couple
20 changes in the way that you work the 36-month
21 period. I would recommend we start off with a
22 tentative map as stated. However, I'd recommend a
23 60 percent complete plan set. Note at this point
24 the builders will probably not know where they're
25 going to pre-plot, but they should know the

1 percentage of homes.

2 And then I would recommend that within
3 six months of the start, instead of 12 months,
4 there be a checkpoint. And at that checkpoint
5 they should have final map, final plans,
6 contracted solar vendor and be working toward the
7 plan check that they submitted for building
8 permit. Sorry.

9 Also, technically I have a question and
10 it may be resolved in the new book. I'm not sure
11 how you do the reservation if you don't physically
12 know the solar vendor. But we can work on that.

13 I had heard that there was a mention in
14 the new guidebook and I didn't see it. Now I know
15 why.

16 (Laughter.)

17 MR. HAMMON: That you must complete a
18 subdivision before you can apply for incentive. I
19 didn't hear that in Bill's. If that's in there
20 somewhere it shouldn't be. You should be able to
21 build out the homes; and as they are built out,
22 apply for the incentives.

23 Regarding the megawatt buckets, I'd
24 recommend that the first three be increased by
25 approximately 50 percent per the recommendation

1 that was made by the advisory committee.

2 In the field verification notes, the
3 rater can't verify the make and model of the
4 modules. If that's still in there, that ought to
5 come out.

6 We did a field walk that was highly
7 appreciated. Staff came out and we and the solar
8 vendor went and looked at how this would work in
9 the field. That was very helpful. I think that
10 the procedures that are in there are practical.

11 However, there was -- staff mentioned at
12 that time that they were going to review this
13 particular subdivision which had some minor
14 shading issues potentially. And really look at
15 how that shading was impacting the performance of
16 the systems, because they have both data. And so
17 there may be a re-visit on the two-to-one on the
18 shading. And we look forward to hearing those
19 results.

20 We support the 10 percent limit on the
21 reservation as an option; that's a really good
22 idea. And on RECs, I really appreciate it,
23 Commissioner Geesman, that you brought that up.
24 We're firmly against the proposal that's been made
25 at the CPUC. The RECs really ought to follow the

1 people who are investing the money, which in this
2 case I don't think is the utilities. They're
3 basically passing the money through. The
4 builders, and ultimately -- well, the builders are
5 putting the money upfront to purchase the systems.
6 And I submit that the RECs should follow that.

7 PRESIDING MEMBER GEESMAN: You know,
8 it's been awhile since I went to law school, and
9 this may have changed. But, to me there's a
10 constitutional protection against expropriation of
11 private property. And whatever may exist in the
12 future with respect to RECs, at least seems to me
13 to be private property.

14 Now, I know there are debates as to what
15 inverse condemnation constitutes, all of that.
16 Seems to me elected people ought to be making
17 those decisions, not political appointees to
18 regulatory commissions; and certainly not
19 administrative law judges.

20 So, I certainly want to hear from
21 anybody with a contrary view. But I have to say,
22 it was a fairly peculiar proposal to hear about
23 last week.

24 MR. HAMMON: I agree. I have a couple
25 of comments on the administrative portion, and I

1 wondered if it was okay to make those publicly?

2 PRESIDING MEMBER GEESMAN: Please.

3 MR. HAMMON: By the way, from here
4 forward I'm talking on behalf of CBIA. I don't
5 think Bob Raymer's here. Bob was going to try and
6 be here. I went over this with him late last
7 week, so these comments reflect both ConSol and
8 CBIA.

9 That we both support the notion of the
10 IOUs becoming the administrators for this program.
11 However, we think there should be some conditions
12 on that. One is that the utilities need to be
13 committed to strong performance requirements on
14 this should they become the administrators.

15 Programs should start on time and some
16 of the utilities have done that, and some of the
17 utilities have not. Reservations should be
18 processed within 30 days. And payments should be
19 processed within 30 days. And in the event that
20 that doesn't happen I think it would be smart to
21 contractually have some penalties in the contracts
22 for not making performance.

23 The incentives, I think -- second point,
24 incentives should be provided for the two tiers at
25 \$500 for tier one, and \$2000 for tier two. And I

1 know that they're still struggling with that
2 higher level of incentive. I think that the goal
3 here is to really move the market to high
4 efficiency homes with solar. And to do that I
5 think that second tier incentive is important.
6 and we're more than willing to work with the
7 utilities to figure out how to make that, within
8 their process, a practical thing to do.

9 Third point. We believe that the new
10 solar homes partnership incentive dollars should
11 be in a statewide pool as opposed to allocated by
12 IOU territory. I understand this would be
13 somewhat difficult for them. But I think that
14 given this program's goals, which would be to
15 really move markets, it would be important to be
16 able to put the money where the builders are
17 willing to do this.

18 So, if, for instance, and I'm making
19 this up, Bakersfield became a hot point for solar
20 and efficiency, we would want to be able to put
21 dollars in there without an arbitrary limit based
22 on allocation across territories.

23 The next two comments are really mine
24 and not Bob's because I don't have his approval on
25 these two. But I think he would agree that we

1 support the new solar homes partnership PR and
2 marketing efforts, and hope that those are also
3 focused on markets that start to work. And also
4 should the utilities become the administrators, we
5 think that it would be important for them to be
6 able to share data with the CEC and therefore,
7 also contractors working with the CEC toward goals
8 of new solar home partnership, as well as zero
9 energy new home program. And I'm specifically
10 talking about bill data that can be neutered, but,
11 you know, how are these homes really performing,
12 as well as information on peak reduction.

13 Thank you very much.

14 PRESIDING MEMBER GEESMAN: Thank you,
15 Rob.

16 ASSOCIATE MEMBER PFANNENSTIEL: Let me
17 just ask, Rob, on the reservation period. And I
18 know you and I have been dealing trying to figure
19 this out. Where really the question is how do you
20 keep the builders from maybe inadvertently over-
21 reserving. Because clearly if the reduction in
22 solar incentives is tied to the number of
23 megawatts reserved, then to the extent they over-
24 reserve for a specific development, then that's
25 going to affect the entire program going forward.

1 And as I understand your comment, you
2 believe that if you do, you require certain
3 information at 36 months, but then come back six
4 months later, you think that that six-month period
5 is long enough for the builders to figure out what
6 the real number is going to be?

7 MR. HAMMON: I do. When we started this
8 process you and I talked about the opportunity to
9 get developers in the process. And that hopefully
10 36 months would allow that to happen. And I've
11 really backed off on that. I don't think that
12 it's practical to get developers involved in the
13 process. I think it's going to be limited to
14 builders in terms of reservations. Otherwise
15 they're going to get tied up, as you mentioned.

16 And I think the goal would be then to
17 get builders who are near enough to construction
18 where they're going to be able to complete a
19 reasonable sized subdivision within the 36-month
20 period. To do that, especially in today's market,
21 they would need to be very close to being able to
22 start construction.

23 And my thought is then that they're
24 about six months ahead of construction making
25 early cash-flow decisions about what they're going

1 to do. And it's at that point that they're
2 deciding what the efficiency level of the homes
3 are going to be, and where and how they're going
4 to put solar on the homes. And six months down
5 the road they're actually into permit, very close
6 to construction.

7 And in my written comments I will -- I
8 mention that if they can't make six months, there
9 could be a one-time three-month extension of that.
10 And then they would be out. But they --

11 ASSOCIATE MEMBER PFANNENSTIEL: But you
12 don't think that having a 24-month reservation
13 period where all of this then will have already
14 been determined, it's just not enough time?

15 MR. HAMMON: No, I think 24 months is
16 too short. The buildout for a good sized
17 subdivision, 100 homes for instance, would be
18 about 24 months. And so you have to have some
19 time in front of that for this sort of decision to
20 be made so that you get the energy efficient
21 design, and you get them thinking about the solar
22 in front of construction.

23 Otherwise, you're going to make some bad
24 last-minute decisions; or worse, they're not going
25 to finish the buildout within the 24-month period

1 and you're going to lose participation for that
2 reason.

3 ASSOCIATE MEMBER PFANNENSTIEL: Thanks.
4 Your points you made are very good, as usual. So
5 I hope that you'll have a chance to put them in
6 writing for us for tomorrow?

7 MR. HAMMON: I will do that, yes, I
8 will.

9 ASSOCIATE MEMBER PFANNENSTIEL: Even if
10 they have to be based on a completely different
11 guidebook than you've been looking at. Thanks.

12 (Laughter.)

13 MR. HAMMON: Thank you very much.

14 PRESIDING MEMBER GEESMAN: Thanks, Rob.
15 Tim.

16 MR. TUTT: Rob. Sorry. I had a couple
17 of questions for you. You mentioned something
18 about not understanding how you can put in a
19 reservation if you don't know what the equipment
20 is upfront. Can you comment more on that?

21 MR. HAMMON: The form that I was looked
22 at, which again may be out of date, did ask for a
23 vendor product name; and I don't think you're
24 going to know that, although you're going to need
25 to know that for the calculator.

1 Now, I haven't gone through the
2 calculator. I've had some staff do that. And
3 there may be a default that you -- there is not.
4 So, that's something that I think we need to look
5 at, is at that early phase when you're doing your
6 initial reservation, how do you determine -- you
7 need to be able to determine approximately what
8 the incentive's going to be. That's the whole
9 point.

10 MR. TUTT: Right.

11 MR. HAMMON: So that within that early
12 period the builder can do an economic analysis of
13 how this is going to turn out. It'd be close.
14 And they probably don't know whose panel it's
15 going to be.

16 So I think there probably ought to be a
17 default in the calculator. And you should be able
18 to put that on the reservation form. And then
19 within six months you should know whose panels,
20 where you're going to get them, and what their
21 performance ought to be.

22 Thanks.

23 MR. TUTT: Thank you.

24 PRESIDING MEMBER GEESMAN: Next card is
25 Aaron Nitzkin, Old Country Roofing.

1 MR. NITZKIN: Yes, thank you,
2 Commissioner Geesman, Chairperson Pfannenstiel and
3 California Energy Commission Staff Members for the
4 opportunity to present to you today on this
5 current version of the new solar homes partnership
6 guidebook.

7 I'd like to begin by saying how
8 impressed I am with the staff and the amount of
9 work that has gone into this guidebook. I know a
10 lot has changed in a short period of time and
11 that's most likely due to a lot of late nights by
12 people here. And for that I'm very thankful.

13 And I like the direction it's going on.
14 Old Country Roofing is excited to continue working
15 with the California Energy Commission and other
16 stakeholders to develop a program that everyone is
17 comfortable with; and most importantly, one that
18 assures the success of solar new homes in
19 California and Governor Schwarzenegger's vision
20 for one million solar roofs.

21 Personally I have spent a significant
22 amount of time focusing on the application of
23 solar new homes. And I've worked for a builder
24 that uses solar; I've worked for a solar
25 manufacturer; now I'm working for an installation company.

1 And based on my experience in the market
2 I have significant concerns that we are going in a
3 direction that might not have the outcome that we
4 all desire. Accordingly I'd like to raise some
5 concerns for the California Energy Commission to
6 seriously consider as you're finalizing this
7 program.

8 The first concern I have is for us to
9 take a look at the market in which we are working.
10 And I'm not talking about the solar industry; I'm
11 talking about the real estate market.

12 I think everyone is aware that sales of
13 new homes has dramatically slowed down over the
14 past year and the industry is going through a
15 tough time. Unfortunately we have not had the
16 benefit of having fair representation from the
17 building industry at many of the CEC workshops, or
18 at the meetings, to discuss the program. This
19 should send a warning signal that the average
20 builder is not exactly lining up to take advantage
21 of the solar rebate program.

22 Now, why is this? Could be that the
23 real estate market has seen the biggest price drop
24 in 36 years. Could it be because the median price
25 of a new home sold last month nationally sank

1 nearly 10 percent and builders are scrambling to
2 lower their overhead and lower their sales prices.

3 Old Country Roofing works with a
4 majority of production home builders in northern
5 California and we are seeing firsthand how
6 difficult it is for our customers. We've seen a
7 number of large production builders thinking about
8 going solar, taking a step back and putting it on
9 hold.

10 One of our customers that normally
11 builds 1000 homes per year sold 60 homes during
12 the first nine months of this year. Another one
13 of our customers that normally sells 50 to 60
14 homes per month, in September sold one home in
15 Sacramento and sold no homes in the Bay Area.

16 Could things get worse before they get
17 better? A study by moodyseconomy.doc predicts
18 home prices will decline nationwide in 2007, which
19 will be the first time this has happened since the
20 great depression.

21 So it is with this backdrop that we are
22 all hoping to go in and try to get these builders
23 excited about going solar and spending an extra
24 \$15- to \$20,000 per house. I'm concerned with
25 launching a new program into this current market

1 where builders are struggling to sell homes to
2 begin with.

3 So, tying that into the program. I
4 definitely feel that one concern I have is this
5 program is being designed to drive the growth in
6 the solar new home market, but it might actually
7 do the opposite in the short term.

8 We are still really only working with
9 the builders that are the early adopters in this
10 industry, a few dozen builders that are the solar
11 pioneers. And unfortunately an extremely limited
12 number of these builders are actually
13 incorporating solar photovoltaics into their
14 production building practices in a mainstream way.

15 Not only do I fear that the program, as
16 it is currently designed, does not provide enough
17 incentives for builders to standardize solar into
18 their communities, my bigger concern is the
19 complexity of the new program, along with the
20 variability of the rebate on a lot-by-lot basis
21 which is, I believe, going to scare away many
22 builders that might have otherwise taken the
23 plunge to go solar.

24 In terms of a bonus incentive for
25 builders to standardize solar on every home, in my

1 previously submitted written comments I propose a
2 30 cents per watt extra incentive for builders
3 that standardize solar.

4 And thank you for raising, adding the
5 ten cents per watt extra incentive. I firmly
6 believe that a ten-cent incentive for builders to
7 standardize solar as a standard feature is not
8 enough to motivate a builder that isn't already
9 planning to go solar on a hundred percent of the
10 homes in a subdivision. Ten cents per watt
11 translates into roughly \$200 per house, and
12 represents less than 1 percent of the total cost
13 of the solar system.

14 If you really want to see traction in
15 the marketplace for standardizing solar, we need
16 to get to the point where we are talking about an
17 incentive of at least \$500 per house, which
18 translates into a bonus rebate of at least 25
19 cents per watt.

20 PRESIDING MEMBER GEESMAN: Let me ask
21 you if you would drive down the \$2.50 level that
22 is currently projected for solar as an option, or
23 for custom homes or homes in subdivisions smaller
24 than six? If you'd drive that down in order to
25 provide that differential?

1 MR. NITZKIN: Yes. In my written
2 comments from the last guidebook, my suggestion
3 was to have the basecase of \$2.60 per watt based
4 on a builder putting solar in 20 percent of the
5 homes in that subdivision and offering it as an
6 upgrade option. The builder would qualify for a
7 30 cents per watt bonus incentive for
8 standardizing solar on 100 percent of the homes.

9 The same builder would actually get a 30
10 cents per watt disincentive by offering solar as
11 an option and putting it just in the model.

12 At the end of the day I believe we need
13 to really incentivize, put the right incentives
14 out there to motivate builders to standardize
15 solar.

16 PRESIDING MEMBER GEESMAN: So those
17 numbers are in your earlier written comments?

18 MR. NITZKIN: That is correct.

19 PRESIDING MEMBER GEESMAN: Thank you.

20 MR. NITZKIN: So builders that are
21 thinking about going solar in 2007 have basically
22 completed most of their plans already. They
23 cannot change their climate zone where they're
24 building. They cannot easily adjust the roof
25 labs. They cannot modify their site plans, and

1 they cannot easily modify their energy efficiency
2 levels.

3 In order for the new guidelines to be
4 embraced successfully we need a significant amount
5 of lead time to not only educate the builders on
6 this new program, but we need to give them the
7 ability to properly integrate these many issues
8 into their design and planning procedures.

9 So what do we do now? I recommend that
10 we continue working through the draft guidelines
11 of this new program based on the expected
12 performance-based incentive and the energy
13 efficiency measures.

14 That being said, I'm not sure if it is
15 even possible, but I'd like to recommend that the
16 Energy Commission consider introducing a
17 transitional period of time to give the industry
18 the time and ability to properly transition from
19 the current program into this new program.

20 This transitional period will enable us
21 to work through the challenge in the real estate
22 market conditions while building upon the initial
23 momentum that exists in the marketplace for
24 selling new homes. It will give us time to
25 properly complete the CEC tool and launch the

1 program and educate the builders on this new and
2 complex solar initiative.

3 The design of this program is critical.
4 If we set up the incentives, the administrative
5 elements and the reservation process in the right
6 way this program will help drive systemic change
7 in terms of how energy is produced and consumed in
8 the new home market in California.

9 I believe if it is designed well market
10 forces will take over and we will pass the tipping
11 point, and you will see executing SB-1's goals of
12 putting solar on 50 percent of new homes in a much
13 quicker timeframe than 13 years.

14 So I look forward to working with
15 everyone in this room on this exciting program.
16 And thank you for your time today.

17 PRESIDING MEMBER GEESMAN: Thank you for
18 your comments. David Hochschild, PV Now.

19 MR. HOCHSCHILD: Good morning. My voice
20 is a little hoarse; I was at the 49ers game
21 yelling yesterday. But it was worth it, they won.

22 I especially want to thank Commissioner
23 Pfannenstiel and the Energy Commission Staff for
24 organizing the new solar homes partnership
25 advisory committee which you ask Rob Hammon and I

1 to co-chair this year, because we are obviously
2 all in this room today thinking about this program
3 as a model for other states, but the participatory
4 process that you've created, I think, itself, is a
5 model. So I really want to thank you for
6 shepherding that this year.

7 I think really the most important part
8 of this program is going to be the first two
9 years. And the goal really has to be to get a
10 very strong participation in the first two years.
11 Right now we have really less than 3 percent of
12 the solar homes installed under the Energy
13 Commission program have been new home
14 construction. So very very poor participation so
15 far.

16 And I think there's really three big
17 changes in the policy arena that are going to make
18 it difficult going forward. And those are, as
19 Aaron mentioned, the housing market obviously
20 being in decline is a big factor for us.

21 But, also, one thing we haven't talked
22 about yet is the change in the electric rate
23 design. In the spring of this year PG&E
24 eliminated the E-7 time-of-use rate and replaced
25 it with E-6. And what that did effectively was

1 reduce the payback time by about 25 percent for
2 residential systems in PG&E.

3 Now, PG&E, being such a large part of
4 the U.S. solar market, it's about 40 percent of
5 the U.S. market for PV is in PG&E territory, that
6 is a big change and a big setback from our
7 perspective.

8 We're working with PG&E to try and get
9 that corrected, and CalSEIA and VoteSolar and PV
10 Now are intervenors in the PG&E ratecase. In
11 fact, we have a meeting with Bruce and his
12 colleagues later this week. But I think going
13 forward we should not assume that we'll
14 necessarily be successful in getting that
15 corrected. And that is a major factor.

16 And finally, the incentives are also
17 going down. So those three factors together, I
18 think, make the hurdle a little bit higher for us.
19 And I think to correct that and compensate for it,
20 the barriers to entry that need to be changed that
21 are still outstanding, from my perspective, are
22 number one, Rob Hammon mentioned this idea of
23 having, promoting solar as a standard in new
24 homes, I think is an excellent goal. I think
25 that, I agree with Rob, and PV Now supports Rob's

1 position that the standard should be the majority
2 of homes in a development. If you achieve that
3 standard you would qualify for this additional ten
4 cents per watt.

5 And secondly, that Rob and I together
6 developed a larger megawatt buckets in the early
7 years of the model that we presented at the last
8 new solar homes partnership committee meeting that
9 was supported. And I would invite you to
10 reconsider adopting that. Because what that does,
11 it simply frontloads in the earlier years, makes
12 the buckets a little bit larger. Instead of 10
13 megawatts, it's 15. And that really is important,
14 I think, to get some momentum in the early years.
15 Without that we're just going to have a lot less
16 momentum. And really getting the volume
17 ultimately is what brings down the cost.

18 So I would ask you to reconsider that
19 model which was supported by the stakeholders in
20 this new solar homes partnership committee
21 meeting.

22 Finally, we talked a bit about the tier
23 1 incentives. And I would just point out, I
24 think, from my perspective, your job as a
25 Commission is sort of to have, you know, a foot in

1 each of two worlds. One is the sort of visionary,
2 what do we want the state to look like; how do we
3 push the envelope. And the other is where we are
4 with the real market.

5 And we just got some numbers this
6 morning that show that in Edison territory in 2006
7 there have been zero new homes done at 15 percent
8 above Title 24. And in PG&E only, I think, Rob,
9 you said about 23 homes were EnergyStar rated.

10 So, we're really not there yet. And I
11 would really encourage -- I like the idea
12 ultimately of really pushing the envelope on
13 efficiency, but I really would urge you to phase
14 that in and have the first two years of the
15 program, have the barriers to entry be as low as
16 possible. And have the tier 1 incentive be
17 designed as a premium you get if you achieve it,
18 but not a barrier to entry to prevent a builder
19 from going solar if they can't meet that target.

20 And in closing I would just say that,
21 you know, this whole program, in my mind, is sort
22 of the runway to get the plane to take off to have
23 a solar market that doesn't need any sort of state
24 incentives.

25 And the two policy instruments

1 ultimately that are going to drive the success of
2 the solar market in California, after the
3 incentive program go away, are one, the ownership
4 of RECs. I really appreciate Commissioner Geesman
5 and Commissioner Pfannenstiel's work on this
6 issue. We are expecting the decision at the CPUC
7 to be released November 14th. And it's not
8 looking like it's going to go our way. That
9 really is a problem, so anything that the Energy
10 Commission can do to support customer ownership of
11 RECs will be critical.

12 And two is rate design. And really
13 getting that right. To send the signals to the
14 market that encourage customers to reduce peak and
15 invest in solar.

16 If we get those two right we'll be in
17 shape for the long term. If we get these other
18 issues we just discussed right I think we'll be in
19 shape for the short term. So, thank you.

20 PRESIDING MEMBER GEESMAN: Thank you,
21 David. Tim.

22 MR. TUTT: Yeah, David, I did have one
23 question relating to the megawatt buckets --

24 MR. HOCHSCHILD: Yes.

25 MR. TUTT: -- in your proposal, or your

1 and Rob's proposal. We had another comment about
2 the certainty of when the rebates could go down as
3 you move from one bucket to another.

4 And we have adopted a change in the
5 current guidebook, or proposed a change so that
6 when you hit the level where you're going to make
7 a change in rebates, you have a certain amount of
8 period, which we haven't defined yet, where we'll
9 define a date certain.

10 And that may lead to a time period where
11 we can go beyond the current megawatt buckets and
12 actual reservations if we accept all reservations
13 up till that date. Or, you know, it might even be
14 less. I was wondering if that made a difference
15 in your calculations to where the megawatt buckets
16 should be.

17 MR. HOCHSCHILD: I think it's a great
18 idea. I don't think that addresses the central
19 issue which is just having larger buckets be
20 designed into the program. But I think what you
21 guys have done with establishing a date certain is
22 really a critical step forward for the industry.

23 And just put yourself in the position of
24 a solar company that's trying to make a sale.
25 They need to deliver to the customer an exact

1 price. And if there's some doubt, or if that
2 changes it really hurts everybody.

3 So, in fact, what's happened, we've
4 taken that idea and we're advancing that now at
5 the PUC in our comments to try and get that
6 program to adopt this practice.

7 But I don't think that alone is -- it's
8 sort of necessary, but not sufficient. We really
9 do need the larger buckets in the early years,
10 yeah.

11 PRESIDING MEMBER GEESMAN: I don't know
12 if this is the place, but I would presume that the
13 buckets proposed by the advisory committee
14 fiscally balanced, as well. I know the staff
15 feels that it's imperative that the buckets that
16 we adopt fiscally balance over a period of time.
17 And I've not heard the discussion as to why we've
18 chosen one over another in terms of the angle of
19 slope.

20 Obviously larger buckets in the early
21 years mean smaller buckets in the later years.
22 Those of us with limited terms presumably would be
23 a lot more focused on the early years. But the
24 staff --

25 (Laughter.)

1 PRESIDING MEMBER GEESMAN: -- staff has
2 a longer view. And it is something that I'd like
3 to get a better understanding of as to what the
4 rationale is.

5 In each instance, though, the buckets
6 need to fiscally balance over the period of the
7 program.

8 Next card is Gwen Rose from Vote Solar.

9 MS. ROSE: Hello, thank you. First I
10 wanted to say that I agree that the Commission
11 Staff has really done a tremendous job of
12 distilling the goals and requirements of SB-1 and
13 the CSI into a workable program.

14 And I was actually going to step back,
15 like Aaron did, and look at the environment that
16 this program has to operate within once it comes
17 online in 2007. And I think Aaron had some great
18 statistics.

19 Just a few more than I stole from the
20 CBIA's website. We're going to get about 20,000
21 less units built in 2006 compared to 2005; 20 to
22 29 percent less permits were pulled in the first
23 nine months of this year compared to the same
24 period last year. Less permits were pulled in
25 September 2006 than any September in 1996. And a

1 figure I heard last week from a report being
2 released was something like 67 percent increase in
3 foreclosures.

4 So, just paint the picture that the
5 housing market is going very soft. There's going
6 to be a lot of aversion to risk, trying new
7 things.

8 And given that picture of this hill
9 we're going to have to climb, I would essentially
10 agree with Aaron and David that we need to figure
11 out ways to reduce the barriers as much as
12 possible, and create an attractive program for
13 builders.

14 I've heard a lot of suggestions for ways
15 of doing that. The larger megawatt buckets in
16 early years to try and get that volume in is a
17 good one. The standard feature providing a higher
18 rebate for builders that offer it as a standard
19 feature, I think is a great one.

20 I do think that the 90 percent minimum
21 qualification is also too high, and would agree
22 that doing the majority of homes would hopefully
23 be sufficient there.

24 And then, again, with the energy
25 efficiency tiers. Given that California already

1 has the most stringent energy efficiency
2 requirements and they were just strengthened last
3 year, feels like we should give the builders a
4 little bit of time to catch up. Offer a premium
5 for doing 15 percent above Title 24, and a premium
6 for doing 35 percent above Title 24. But allow
7 them to do code-compliant homes and get that base
8 level rebate.

9 That's the bulk of my comments. Thank
10 you.

11 PRESIDING MEMBER GEESMAN: Thanks very
12 much. Ed Murray, CalSEIA.

13 MR. MURRAY: Morning and thank you,
14 Commissioners. I'm back. I'm representing
15 CalSEIA and specifically the solar thermal
16 industry in the comments that I'll make today.
17 And I wanted to thank the Commission for putting
18 in the one line which seems appropriate that it
19 was the last line, that the solar water heating
20 qualifies as a measure for meeting tier 1 and tier
21 2 energy savings levels.

22 Is this the only bone that we can be
23 thrown? I feel like we're just like this is an
24 after-thought; and this is already done. I mean
25 this is like windows or insulation.

1 PRESIDING MEMBER GEESMAN: I thought
2 1982 we were throwing you a giant bone.

3 MR. MURRAY: Well, and I was there in
4 1982, and I'm still here. And a lot has happened
5 since then.

6 I was curious as to why solar thermal is
7 incentivized in the new solar homes partnership.
8 The SB-1 includes \$100 million for solar thermal;
9 and we don't have anything going into the new
10 solar homes partnership here.

11 I want to reiterate what we do. We
12 reduce natural gas consumption so more can be used
13 to produce electricity. Also one-fifth of the
14 cost of PV is as efficient as what solar thermal
15 provides. So we provide something as efficient
16 for less money. And I'm not throwing stones at
17 PV; I think it's great that you're supporting
18 them. But I think you also need to support solar
19 thermal.

20 More solar thermal, if it was installed,
21 there would be more solar on homes, because the
22 builders may look at that as an option for the
23 less dollars.

24 The systems that were installed in 1982
25 are a lot different than the ones that are

1 installed today. The contractors that are still
2 around, the manufacturers that are still around
3 are providing systems that are less problematic
4 because they want to stay around. They don't want
5 warranty issues, they don't want call-backs. So
6 the systems are a lot different.

7 Shea Homes in San Diego installed solar
8 PV and solar thermal on their homes, and there
9 were no call-backs on all the solar thermal. And
10 there were problems with the -- more problems with
11 the PV systems. Again, not to throw stones, but
12 there were no problems at all in the solar thermal
13 systems.

14 Three of the largest manufacturers of
15 solar panels are located here in California; in
16 Ontario, in Richmond and in Santa Barbara.

17 So, I just want to let you know the
18 systems are better. We'd like to be included.
19 And anything we can do to have that happen, let us
20 know. Thank you.

21 PRESIDING MEMBER GEESMAN: Thank you.
22 Chris O'Brien, Sharp Electronics Corporation.

23 MR. O'BRIEN: Good morning. I thank
24 you, Commissioner Geesman and Commissioner
25 Pfannenstiel and staff. Chris O'Brien with Sharp

1 Solar.

2 First of all, I'd like to pile onto the
3 compliments for the pace and diligence with which
4 this process is moving forward. I can say from my
5 experience of working in several states across the
6 country that California really sets the gold
7 standard. And it's a little unnerving sometimes
8 to have the ball in our court so often, with
9 regard to the time required to respond to
10 important issues, but I think that is a healthy
11 thing and I think reflects the diligence of the
12 staff in putting this forward.

13 I'd like to focus my comments this
14 morning primarily on the issues of equipment
15 certification and issues that are specifically
16 related to -- of concern to Sharp as a
17 manufacturer.

18 And the reason for this, Sharp currently
19 manufacturers about 35 percent of the modules that
20 go into the emerging renewables program. And we
21 have a strong -- and I think these standards that
22 are set for module certification in this new solar
23 home partnership will set the rules basically for
24 CSI and for other solar homes across the country.

25 I think the -- we support the idea that

1 was proposed earlier that for 2007 that we reached
2 a compromise where the manufacturers would sell
3 for port, many of the parameters on the modules, a
4 nd would only ask that in our case there are many
5 modules that -- you know, Sharp sells in markets
6 across the world, and many of the modules that we
7 sell here in the U.S. are not sold in other
8 markets around the world. And so the testing that
9 we -- we'd like the flexibility to use data from
10 like modules in other markets. I think it's a
11 reasonable request and would like to make sure
12 that's included.

13 Second is that on page 34 there's a
14 specification that says that the average data
15 should be provided for lots of 100. I think for,
16 you know, Sharp, a typical production run is 1000
17 or 5000 modules. And so we would ask that that
18 be, that to the extent that is requested from the
19 manufacturers, that we are allowed to average
20 across a typical production run.

21 We have some concerns on the requirement
22 for the ten-year guarantee. We're comfortable
23 with the market moving that way. There is an
24 inconsistency at the moment, but for 2007 between
25 the ten-year requirement, which is being

1 recommended for the new solar homes partnership,
2 and the five-year requirement under the CSI.

3 So, in any case, I think we have some --
4 a couple of concerns on that. First of all, the
5 15 percent degradation. On page 10 it outlines a
6 15 percent degradation from nominal rating of the
7 modules in a case where modules are sold with a
8 plus/minus 5 percent. It puts us in an awkward
9 position. We'd like that to be 15 percent from
10 the minimum rated rating of the module.

11 Also there is a lot of uncertainty that
12 remains on exactly how the system performance will
13 be verified in this proposal. And at this point I
14 recognize that the PV calculator, which is
15 proposed as an integral part of that verification
16 process, is in alpha testing, beta testing, and so
17 we're anxious to work with that PV calculator;
18 just make sure that it is something that is robust
19 and something we're comfortable with using as a
20 tool to determine whether our systems are in
21 compliance.

22 One on page 38, there's a proposal for
23 how to handle an instance where arrays -- where
24 there are multiple arrays on different roof faces.
25 Sharp and some other manufacturers manufacture

1 multi-string inverters. And it would be simpler
2 to just test each string separately, or calculate
3 each string separately for the PV calculator.

4 Those are the bulk of my comments on the
5 equipment concerns. And I would also just pile
6 onto the, or add to the chorus on the issue of REC
7 ownership. I think it's a ill-founded argument
8 and we are a hundred percent behind the owners
9 retaining the ownership of those RECs.

10 Thank you very much.

11 PRESIDING MEMBER GEESMAN: Thank you,
12 Chris. Bill Kelly, PowerLight.

13 MR. KELLY: Thank you, Commissioners. I
14 wanted to -- this is hard for me to do at each
15 meeting, bring up the -- before joining PowerLight
16 I spent 15 years in the energy efficiency sectors.
17 I believe strongly this is a great thing for the
18 Commission to be promoting. But I still am very
19 very concerned that the Commission is requiring
20 the builders exceed Title 24 to qualify for the
21 rebate.

22 From the builders' perspective the
23 standards were just changed last year. I think
24 the builders and also the IOUs that are providing
25 incentives to exceed that are just getting their

1 arms around how to exceed Title 24 successfully to
2 qualify for the rebate programs.

3 I understand across the state there's
4 been very little builders subscribing to the IOUs'
5 programs to incentivize that.

6 I guess the point I'm trying to make is
7 that we will greatly limit builders' access to
8 this program in the early years if we have that
9 requirement.

10 And from my perspective, promoting both
11 energy efficiency and solar in new homes, what one
12 of the really nice things about solar on any
13 facility is that people really start to look at
14 their consumption when they're investing in solar.
15 And builders, when they invest in solar for their
16 homebuyers, really start to look at consumption.

17 And it also starts to bring in
18 efficiency. But unless we let the builders
19 participate in the program initially we will limit
20 the opportunity to bring builders into this
21 program. And ultimately limit the success of both
22 efficiency and solar in California.

23 So, my sole comment is basically today
24 is to eliminate -- to request that the CEC
25 eliminate that as a requirement to qualify for the

1 partnership.

2 Thank you.

3 PRESIDING MEMBER GEESMAN: Thank you,
4 Bill. Kirk Uhler, Solar Power, Inc.

5 MR. UHLER: Good morning; Kirk Uhler,
6 Solar Power, Inc. My comments today are limited
7 to two on policy and then two questions regarding
8 implementation.

9 On policy, I was curious as to how the
10 number of six was arrived at, six or more homes,
11 fewer than six receiving one. It would seem, as
12 radical as this is, that maybe five is a better
13 number. And the reason that I issue five is
14 simply tying it to the California Environmental
15 Quality Act. CEQA has a requirement that parcel
16 maps four and under are exempt; five and over are
17 subject to CEQA. And therefore a five-unit
18 subdivision is subject to all the same
19 environmental review that a 500-unit subdivision
20 is subject to.

21 So, from a time to market standpoint, a
22 four and under is faster to market than a five and
23 over. So that's simply my comment on that.

24 In regard to the building committing
25 that 90 percent of homes will have solar. How

1 about 90 percent of solar-eligible homes have
2 solar? In other words, I have a client that
3 wanted solar on 100 percent of their homes. After
4 walking their project it was clear that about a
5 third of the homes, because of existing tree
6 canopy, were not going to be eligible.

7 So if that builder commits to those lots
8 that are solar eligible by virtue of no shading,
9 does that qualify? So how about just adding that
10 word eligible?

11 And then in terms of implementation, my
12 questions are -- and this is over in the section
13 where you're actually soliciting feedback -- if
14 builder offers solar as an option, restricting
15 reservations to 10 percent of total units in the
16 development. What about a client, for instance,
17 one that we have that is committing to about 25
18 percent, they're preplotting about 25 percent of
19 the subdivision; and then they want to sell solar
20 as an option on the remainder. May I reserve a
21 reservation for the 25 and the 10 percent for the
22 option? So there's the possibility of combo-ing
23 those.

24 And then the last question is does that
25 reservation roll. The example was given 100

1 homes, 10 percent, 10 homes. Well, if the first
2 ten homes sold, three are solar homes, may I now
3 go apply for three more reservations or two more
4 reservations because now I'm down to 90 homes left
5 in my inventory, but I only have reservations for
6 seven homes.

7 So is that a rolling reservation, where
8 as I sell the solar option homes I have the
9 ability to reserve more?

10 Thank you.

11 PRESIDING MEMBER GEESMAN: Thanks very
12 much. Joseph McCabe.

13 MR. McCABE: Thank you. And reiterating
14 the kudos to this Committee; amazing work you're
15 doing, thank you.

16 I wanted to touch base on solar thermal
17 of 1982 a little bit, and then talk about RECs and
18 bring it back to photovoltaics, if I may.

19 Some of the things that I've been
20 looking at on solar thermal were the policies of
21 the 1982 and what was happening at that time. And
22 my investigation showed that between \$7000 and
23 \$8000 worth of tax incentives, combining the
24 federal and state, were available. That was money
25 taken off your tax bill. So quite substantial,

1 along with a California warranty policy that
2 included a three-year limited warranty and one
3 year if it got corroded because of bad water. So
4 I thought that kind of a perfect storm of policy
5 was part of the challenges of that industry.

6 But let's talk a little bit more about
7 the strengths today. Since that time SRCC has
8 been implemented. And every policy across the
9 country now includes the requirement for systems
10 to be SRCC certified.

11 Additionally, right now NABCED has a
12 program for installers, for certifications of
13 their knowledge base. So, we have now systems and
14 installers that are looking at quality
15 installations.

16 But the one great thing I think that's
17 happening now is the possibility of REC
18 certification from solar thermal. There are some
19 utilities across the nation that are actually
20 metering the delivered energy from solar thermal
21 systems.

22 The Center for Research Solutions is
23 looking at the certification of the solar thermal
24 systems for qualifying for RECs. And that, to me,
25 is a great concept for that particular technology.

1 So, bring it back to your leadership,
2 Commissioner Geesman, on the RECs issue. Thank
3 you very much for mentioning that.

4 What ramifications would this decision
5 have on solar thermal RECs, if people were to
6 install these without any kinds of public goods
7 funds. Would then the investor-owned utilities
8 get those RECs was my kind of question.

9 But what I'd like to kind of end with is
10 kind of a carrot-and-a-stick concepts that I was
11 thinking. I'll start with the stick first. I'll
12 gladly be a part of a class action lawsuit,
13 because being a net metered photovoltaic customer,
14 if they take my RECs away I'll be happy to join
15 the thousands of other people in the state that
16 want their RECs.

17 The carrot approach, I think, is
18 something that your leadership could actually
19 provide right now, is a section in the new solar
20 home partnership guidebook that says you allow for
21 standard offers by investor-owned utilities for
22 those RECs credits.

23 That is what is happening in Colorado
24 right now. A photovoltaic system gets two kinds
25 of credits. One is a capacity credit, which is

1 similar to your expected performance credits; but
2 it also gets a RECs credit, which has a quality
3 that isn't performance based; that the energy
4 produced from a solar system gets a certain dollar
5 amount upfront for systems smaller than 10
6 kilowatts. So you get a capacity credit that's
7 about \$2 a watt and a RECs credit, standard offer
8 right now is \$2.25 a watt.

9 So a paragraph in the new solar home
10 partnership that says investor-owned utilities are
11 encouraged to provide new home builders with a
12 standard offer for RECs. And that leaves it open
13 for companies like Bonneville to actually purchase
14 the RECs or for utilities in an open-market
15 scenario.

16 So those would be my kind of comments
17 and suggestions. Thank you very much.

18 PRESIDING MEMBER GEESMAN: Thank you. I
19 have to say I'm still a little mystified on this
20 RECs question because I have a hard time
21 understanding the rationale for why we would want
22 to give the RECs to the utilities. And I'm
23 looking for somebody -- I've still got a stack of
24 blue cards -- I'm looking for somebody to come up
25 and explain that rationale, as to why that makes

1 sense.

2 MR. McCABE: Perhaps the stock price of
3 some of these investor-owned utilities would --
4 they want more money for their stockholders.

5 PRESIDING MEMBER GEESMAN: The
6 California utilities trade pretty well, so their
7 stocks have done pretty well.

8 I'm just mystified. And I think -- and
9 we confronted a lot of this nonsense in trying to
10 start up the renewable portfolio standard, as
11 well. Seemed to me that the litmus on any of
12 these ideas, even the wacky ones, should be will
13 this accelerate the proliferation of solar systems
14 or will it retard the proliferation of solar
15 systems.

16 And my hunch is nobody's going to come
17 before us today and explain how giving the RECs to
18 the utilities will actually accelerate the
19 proliferation of solar systems. But I don't want
20 to rule out that possibility, so --

21 MR. McCABE: Well, if I could just
22 reiterate my suggestion, a paragraph that says
23 IOUs are encouraged to give a standard offer for
24 those RECs. That could eliminate a lot of these
25 concerns of the homebuilder market right now.

1 That on top of the expected performance credit
2 that the state is giving, the investor-owned
3 utilities can now come in and get those RECs.

4 PRESIDING MEMBER GEESMAN: Yeah, but I
5 don't sense that that's what they're interested
6 in. I --

7 MR. McCABE: No, not -- no.

8 PRESIDING MEMBER GEESMAN: -- I don't
9 think you're old enough, but --

10 (Laughter.)

11 PRESIDING MEMBER GEESMAN: Do you recall
12 that --

13 MR. McCABE: Thank you.

14 PRESIDING MEMBER GEESMAN: -- Dire
15 Straits song that you get your money for nothing
16 and your RECs for free?

17 (Laughter.)

18 MR. McCABE: I'll leave on that note,
19 thank you.

20 PRESIDING MEMBER GEESMAN: Thank you,
21 Joe. Glenn Harris, SunPower Consulting.

22 MR. HARRIS: Good morning. Thank you
23 for this event. It's awfully nice to be able to
24 speak.

25 I'm here sort of on the other end of the

1 business. I see a huge requirement for more
2 installation businesses or installers to develop
3 with this program, whether it's the CSI or the new
4 home builder initiative.

5 Right now there's on the order of 100 to
6 150 installers which get approval each month in
7 the current CEC program. And on average their
8 kilowatts approved are between 10- and 20,000.
9 And the program is approving something like 3 to 4
10 megawatts. And there's some fallout, but we could
11 use that as a good working number.

12 Looks to me like we're going to need
13 four or five times more installation capacity to
14 develop in the state to meet the CSI goals, as
15 well as the, you know, participate in the
16 homebuilder program.

17 And I'm concerned when I look at data
18 from the CEC where the installers' businesses have
19 developed that they're developing very nicely
20 around the population centers of the state and
21 where the utilities are offering incentives at the
22 moment. And I see large increases in price, both
23 to the consumer that the installer's having to
24 charge, and the consumer's having to pay based on
25 module, copper, material, fuel, other price

1 increases.

2 So I see that the profit in the
3 installation business may go to below zero here in
4 near term with the incentive levels that are being
5 offered by both the CSI and the new homebuilder
6 program.

7 So, I took a look at one particular
8 aspect that was interesting to me, which was the
9 geographic -- and in this presentation it's called
10 the reference location -- and the climate zone.
11 And from my point of view it's a penalty to the
12 industry or a specific installer if a system is
13 rated based on power available at a location.

14 Tilt, angle, orientation or shading,
15 absolutely; that's something that could be a
16 factor on performance. But as far as location in
17 the state to try to disincentivize a location,
18 that seems like bad policy to me.

19 And I did some, I was trying to figure
20 out a way to represent what the value of that
21 change might be, just based on orientation, and
22 the steps in the CSI or in your program.

23 And for instance, if there's a \$2.50
24 incentive right now, and I apply solar hours to a
25 location like Arcata, which was in Tim's

1 presentation on solar power 2006, that installer
2 might then get \$1.99 per watt, just on a location
3 basis. And the range of disincentive there
4 basically would consume all profit in an
5 installation at this point.

6 So, the thing I would like to recommend
7 is that location not be considered in the model at
8 this time. It could be put in at a future time
9 when industry prices stabilize or start to
10 decline, but at this point it would be a
11 disincentive and it would functionally potentially
12 put a large group of installers out of business
13 who could be supporting the new homes solar
14 initiative for the builders.

15 Thank you.

16 PRESIDING MEMBER GEESMAN: Let me push
17 back a little bit. You've got a finite pool of
18 incentive dollars. You're looking for both
19 electricity and the development of an industry and
20 presumably trying to encourage voluntary choices
21 by builders and customers to install systems
22 because we're not in a mandatory environment yet.

23 Wouldn't you want to concentrate your
24 incentive dollars in locations where conditions
25 were best, and where the likelihood of a greater

1 penetration of the market was highest?

2 MR. HARRIS: Yes, I agree with that. I
3 think that you will improve the quality of systems
4 almost perfect at every location if you just take
5 into account shading, orientation and tilt. And
6 the state has phenomenally good solar resources
7 throughout it relative to other locations on the
8 globe. So you win there.

9 PRESIDING MEMBER GEESMAN: Um-hum.

10 MR. HARRIS: The majority of the
11 population of the state is where the best solar
12 resources are. So, functionally you're not going
13 to have much financial impact on the program if
14 you allow location to be removed from the formula
15 at this time.

16 PRESIDING MEMBER GEESMAN: Good answer.

17 MR. HARRIS: Thank you.

18 PRESIDING MEMBER GEESMAN: Thank you.

19 Mark Roper, Schott Solar.

20 MR. ROPER: Good morning. I'd like to
21 thank Commissioners Geesman and Pfannenstiel for
22 the opportunity to provide some input today. I'm
23 going to comment on two topics.

24 The first is as a representative solely
25 of Schott Solar, we're a photovoltaic

1 manufacturing company, listed as the fifth or
2 sixth largest in the world in 2005, depending on
3 how it's measured.

4 And I wanted to comment on the
5 requirements for the 15 percent over the Title 24
6 efficiency standards. As a manufacturer that has
7 focused primarily on the commercial market to
8 date, we have a product in the pipeline that
9 addresses the residential new home construction
10 market.

11 And basically my company's relying on me
12 to inform them as to whether we should proceed to
13 bring this product to market, or whether the
14 market is ready or not.

15 And in the past, as a residential
16 business manager for a company called AstroPower,
17 I have a fair bit of experience working with new
18 home construction in California. And I can tell
19 you that it's a very difficult hump to get over to
20 get a builder to install a photovoltaic system.

21 And I think by adding the 15 percent
22 above Title 24 standard, given some of the numbers
23 I heard here this morning, less than two dozen
24 buildings built so far this year in Southern
25 California Edison and PG&E territory that meet

1 that standard, I would, without a doubt, recommend
2 to my company that we keep the product on the
3 shelf and that we wait for the market to mature
4 years from now.

5 So I'd strongly encourage you to
6 reconsider that that 15 percent over Title 24,
7 it's an extremely laudable goal, but I worry that
8 it's letting the perfect get in the way of the
9 good here in terms of promoting, rather than
10 retarding, the development of this market.

11 The second topic that I'd like to
12 discuss is related to the broader issue of
13 criteria for testing, listing and certification of
14 eligible components.

15 And my comments here are those of Schott
16 Solar, but also representing some, not all, but I
17 believe a majority of the photovoltaic
18 manufacturing industry on this topic. And we will
19 be submitting written comments that reflect what I
20 say here today, with the signatories being major
21 manufacturers in the U.S. and abroad.

22 This is an issue that I've focused on a
23 great deal over the last year and expect to over
24 the next several years; it's one I'm quite
25 familiar with. I'm a board member of the North

1 American Board of Certified Energy Practitioners;
2 I'm a former past chairman of the board of
3 directors of Solar Rating and Certification
4 Corporation; former board member of the PowerMark
5 PV Certification organization; and currently a
6 board member of the Interstate Renewable Energy
7 Council and representing the PV industry on the
8 topic, their ongoing open proceeding on equipment
9 certification.

10 And it's one that the industry is very
11 interested in. Unfortunately we're coming a
12 little bit late to the table here, but recently
13 within the last several weeks we've recognized
14 that this proceeding that's going on now is
15 establishing equipment certification requirements
16 that will very likely propagate through the rest
17 of the California program. And as California
18 goes, so goes the rest of the country generally,
19 which is, you know, a symbol of the leadership
20 that we show here in California.

21 And in the last couple of weeks we've
22 been invited to participate on some staff
23 conversations specifically about this topic. And
24 I appreciate very much the modifications to the
25 guidelines that you made as a result of those

1 conversations that were presented today.

2 Unfortunately, we couldn't get the
3 majority of the industry to participate in that
4 call and come to some consensus. And we've also
5 heard some strong disagreement from some of the
6 consultants to the CEC on the most recent proposal
7 to address the issue of module performance.

8 And so, today what I'm going to propose
9 to you is a new alternative for how we meet the
10 requirements of California consumers that's yet
11 different than the two proposals that have been
12 drafted to date.

13 So, one thing to recognize is that there
14 are two efforts ongoing as we speak, the Solar
15 American Initiative has just launched a three-year
16 program to develop some national equipment
17 certification scheme. And ongoing is an IEC
18 proceedings to develop specifically for
19 photovoltaic modules, a performance standard that
20 would be added to their safety and reliability
21 standards to make a trifecta of international
22 module certification requirements.

23 And as those things are going on, these
24 are highly deliberative involved processes; lots
25 of stakeholders; consensus-based standards trying

1 to be developed there that will be national, if
2 not global. The industry here today strongly
3 urges the CEC not to trump those processes and
4 come up with something that is provincial and may
5 hurt the California market in the short term.

6 So, to the recommendation that we want
7 to make today: First, we all agree that UL-1703
8 addresses safety standard requirements; I think
9 there's no dispute about that.

10 Second, with regard to the performance
11 data that will be fed into the EPPB model, we all
12 agree -- we, the industry -- that data that comes
13 out of the IEC processes to provide that data is
14 ultimately a very fair and easy way to do it,
15 since most of us tested that procedures already.

16 However, there are a couple of
17 considerations. One, I'd like to echo what Chris
18 O'Brien from Sharp Solar said before, and that is
19 that the IEC certification -- that's 6125, is
20 not -- 215, I'm sorry, is not a hundred percent
21 consistent with the UL requirements, i.e., there's
22 certain differences in the products that are sold
23 domestically versus those that are sold
24 internationally. And in fact, you cannot get IEC
25 61215 and UL 1703 certification for the same

1 product in exactly the same configuration.

2 And so we encourage the Commission just
3 to take basically like modules. Generally what
4 happens is a company like Sharp or myself will
5 qualify a module with different connectors for the
6 European market than for the U.S. market. But
7 everything else is essentially the same. Maybe
8 the frame is the same --

9 PRESIDING MEMBER GEESMAN: Do you have a
10 recommended definition of like modules?

11 MR. ROPER: Well, that's something that
12 we can certainly propose. I don't have one for
13 you here today, but we all basically build the
14 same sort of platform, and then we add frames and
15 connectors on for the specific market.

16 So, to the extent that the module and
17 the laminate is electrically, from a construction
18 standpoint, the same, I think we can come up with
19 some recommendation there.

20 Just really the point is to be flexible
21 and allow this testing that already happens for
22 European products to apply to the U.S. portion
23 that you're requesting we provide you data from.

24 The other think is that there are some
25 manufacturers in the U.S. that do not sell

1 internationally; and the Commission has
2 recognized, as I think the staff, by allowing a
3 one-year grace period to get that data through the
4 formal processes of the IEC 61215.

5 Finally, on that standard, we want to
6 make sure that the labs that we're using to
7 certify those results are the same labs that are
8 basically eligible to certify our products in
9 Europe. And the current staff guideline
10 recommends American Association for Laboratory
11 Accreditation. However, in the European market we
12 use TUV certification body. And they happen to
13 not be accredited by the A2LA. So we'd ask that
14 the Commission accept labs that are accredited for
15 the European Union as adequate for testing and
16 providing that data for the U.S.

17 Okay, the final part of this point
18 relates to the performance of production modules.
19 And this has been a topic that has been hotly
20 debated over the last several weeks. It's been a
21 very contentious issue. There are consumer
22 advocates that say that well the plus or minus 10
23 percent tolerance really allows for the
24 opportunity that we, as the industry, will deliver
25 a lot of minus 10 percent modules, and the

1 consumers essentially won't get what they're
2 paying for.

3 And there's been a couple of proposals
4 that have been floated. The first was that we
5 guarantee a minimum, absolute minimum power for
6 every module that we deliver. And that from a
7 manufacturing and marketing perspective is
8 essentially impossible.

9 The second proposal, which we like much
10 better, is the one that's in the current draft
11 that suggests that we just essentially self-
12 certify that the average power that we deliver is
13 equal to the nominal power. And that proposal is
14 difficult for a couple of reasons.

15 One is that it's hard to certify to
16 that. It creates a new process of data delivery
17 and certification. And the other thing, as again
18 Chris O'Brien from Sharp mentioned, was that the
19 lot size is a difficult factor for a company
20 that's making 500 megawatts a year to certify that
21 every 100 modules that comes out of their factory
22 meets an average, imposes a virtually impossible-
23 to-meet manufacturing control process.

24 So we have an alternative suggestion.
25 And that suggestion is we believe actually more

1 stringent than the most recent one, but it's one
2 that the industry sees as necessary. And that is
3 raising the requirements for eligibility in the
4 CEC program to modules that are listed at UL with
5 not greater than a minus 5 percent on the low end
6 of the power tolerance.

7 So, all modules would be minus 5 plus
8 whatever, but nothing greater than minus 5 percent
9 as the power tolerance on the module would be
10 accepted by the CEC.

11 That would accomplish a couple of
12 things. One, it would insure that no individual
13 consumer would ever get less than 95 percent of
14 the rated power of any module installed in the
15 program. It would make it nearly impossible for a
16 manufacturer to deliver significantly less on
17 average than the actual nominal power, because
18 there's a natural distribution of power from
19 modules that come off the end of our manufacturing
20 line.

21 Finally, there's been several studies
22 that show that the differences in performance on
23 arrays that have modules varying up to 5 percent
24 are negligible in terms of module mismatch losses;
25 not measurable.

1 And so under this scenario if we just
2 raise the minimum performance tolerance to minus
3 5, we think the CEC can continue to offer
4 incentives based on nominal rated module power and
5 not have to institute any additional processes or
6 certifications other than just the normal UL
7 process, which I'll point out says that -- the
8 requirement for listing a UL module says that if
9 the manufacturer states that the tolerance is
10 tighter than plus or minus 10 percent, then it
11 must be what the manufacturer states in order to
12 be eligible for UL certification. So the stick is
13 that you lose your UL listing if you're not within
14 that tolerance.

15 So, to summarize, the recommendation
16 here is that we require all modules eligible for
17 the CEC program to be UL listed with the lower
18 limit of the power tolerance at negative 5 percent
19 or smaller; base the incentives on a nominal rated
20 power. And then finally, allow the flexibility in
21 providing the test data for the EPBB to phase in
22 over a period of a year and also allow for these
23 like modules and considerations that distinguish
24 the U.S. and the European markets.

25 PRESIDING MEMBER GEESMAN: And you'll

1 have multiple signatories --

2 MR. ROPER: Yes, that's correct.

3 PRESIDING MEMBER GEESMAN: -- to that
4 proposal? When can we expect to get it?

5 MR. ROPER: It'll certainly be in by the
6 deadline tomorrow.

7 PRESIDING MEMBER GEESMAN: Okay, great.
8 Thanks very much.

9 MR. ROPER: Thank you, thank you for
10 your time.

11 PRESIDING MEMBER GEESMAN: Thank you
12 Mark. Mark Johnson, Golden Sierra Power.

13 MR. JOHNSON: Good morning. Mark
14 Johnson with Golden Sierra Power. I'd like to
15 start off, I was going to talk a little bit about
16 the additional requirements for the Title 24, and
17 I think I'd like to refer to your question you
18 were asking about does something inhibit solar or
19 prohibit. And I think the more Title 24
20 requirements above there, that you require, you're
21 prohibiting. And so I think your question there
22 should be asked to the same question of the Title
23 24 requirements, or the above, higher Title 24.

24 The two things I wanted to talk a little
25 bit about was the RECs, answer some questions.

1 Bring maybe a different perspective, just some of
2 the challenges. I don't necessarily have a
3 perspective because I don't think we have all the
4 answers yet to come up with that.

5 And then to address the new home
6 program. My concerns still rely in the financing
7 end of this stuff. You know, again, I looked on
8 the list. There's no builders, no builders
9 association. I think that's a real sign of what
10 we're looking at.

11 I concur a lot with what Aaron was
12 saying earlier with where we are in the market.
13 But my concern is, you know, a builder gets this
14 home; he has two homes, one has solar, one
15 doesn't. What does the value of the home become?
16 How does that transact into a transaction into a
17 sale of the home? Who finances that home? Do you
18 have to bring in special financing people that
19 will actually incur the solar into the financing,
20 compared to somebody who doesn't? If it's a
21 first-time homebuyer how does that relate to, you
22 know, the financing and the qualifications and
23 those things?

24 And I'm not sure we have those answers,
25 and I'm not sure your group or the Committee has

1 addressed those questions and things. And I think
2 those are big-type factors that can prohibit
3 builders from participating. Because the last
4 thing they want to do is be stuck with trying to
5 sell a home or get, you know, some sort of value
6 or some sort of profit out of selling a home with
7 solar.

8 Because I would assume, if a builder's
9 going to want to do this, he's going to certainly
10 want to figure out a way to make some money from
11 the addition of solar on the home, than to not, to
12 jump through all the hoops. And I don't see where
13 that can take place. It's just a --

14 PRESIDING MEMBER GEESMAN: You know,
15 some of these questions are beyond the scope of
16 the regulatory process to address, and really does
17 rely on market forces to develop answers. And
18 financing may very well be one of the primary
19 areas that a market will simply have to develop.

20 MR. JOHNSON: Well, I think that's sort
21 of where we are with the RECs. If you want to go
22 over to the REC. You know, there is a precedent
23 set for the utilities getting the RECs. Nevada
24 requires that anybody who installs a solar system
25 turn the RECs over to the utilities; so the

1 utilities do get the RECs on the Nevada side.

2 So, --

3 PRESIDING MEMBER GEESMAN: Other than
4 Indian casinos we don't model many of our policies
5 after the State of Nevada.

6 (Laughter.)

7 MR. JOHNSON: But there --

8 PRESIDING MEMBER GEESMAN: What's your
9 second argument?

10 MR. JOHNSON: -- is a precedent set
11 where there's -- I understand we're still
12 frontiating our own. But, one of the things that
13 I found with the values of the RECs is, one, I do
14 know of somebody who has purchased RECs up in the
15 Tahoe area, and they are paying 10 percent more
16 for the cost of those RECs than they are for the
17 power that it would cost to buy them from the
18 utility.

19 The other issue that I think comes to
20 the RECs is their value. And it's my presumption
21 that individual homeowner who owns a portion of a
22 REC, the value of that REC is not going to be the
23 same as somebody who has aggregated a bunch of
24 RECs together and can sell it on the open market.

25 And I think the struggle becomes is if

1 you have a -- you have to develop a market for the
2 individual homeowner to sell that REC. And in my
3 opinion that's going to devalue the REC quite
4 substantially by trying to develop that type of
5 market. Unless you can aggregate the RECs into a
6 large chunk and then be sold that way, that's
7 where the real value of the RECs are going to come
8 out.

9 And so that just seems to me to be the
10 real challenge of the RECs compared to a large
11 group of small people trying to sell it on the
12 market compared to having them aggregate it up and
13 sold on a large scale type market where the value
14 is really where the RECs are supposed to be.

15 And so those are --

16 ASSOCIATE MEMBER PFANNENSTIEL: Mark.

17 MR. JOHNSON: Yes?

18 ASSOCIATE MEMBER PFANNENSTIEL: Wouldn't
19 production home builders be the appropriate, or at
20 least the obvious, aggregator of the RECs. If
21 they are providing solar, it seems to me that they
22 would have that aggregating function, you know, de
23 facto --

24 MR. JOHNSON: That's certainly correct.

25 Well, I even take it as far as saying, you know,

1 you could set up the homebuilder as his own third-
2 party ownership the way the rules are set up now.
3 I mean we've discussed that a little bit in the
4 past where the builder could end up owning all the
5 systems and just leasing the system. Or selling
6 power to the customer through a power purchase
7 agreement.

8 And, you know, I don't know if that's
9 been addressed or if that was just something that
10 you guys have decided to see if the market
11 develops that way. But that, to me, is something
12 that could take place like that.

13 Yes, the RECs could be aggregated that
14 way but I think, for example, in my comments we
15 recommended that the RECs could be used to enhance
16 financial institutions. Because the financial
17 institutions really, if you really want to take
18 the ownership of the system, if somebody finances
19 their portion of the system to the bank, does the
20 bank not becomes the -- well, to some extent.

21 And so the banks could require that that
22 REC be part of the financing process.

23 PRESIDING MEMBER GEESMAN: Yeah, I have
24 to say my experience on the California Power
25 Exchange has diminished my appetite for state-

1 designed markets. So, I'm not looking for the
2 holy grail of perfect market design as much as I'm
3 concerned when I see what looks like a
4 commandeering of your property to gift somebody
5 else, who, as near as I can tell, hasn't
6 contributed anything, let alone a purchase price,
7 in exchange for taking your property.

8 So, I --

9 MR. JOHNSON: Well, I can certainly
10 understand that position --

11 PRESIDING MEMBER GEESMAN: -- I don't
12 get to the point of market design as much as I'm
13 just troubled by the notion of taking somebody's
14 property and giving it to somebody else.

15 MR. JOHNSON: But I think one of the
16 questions becomes is because the ratepayers have
17 an incentive out there, and the utilities have a
18 vested interest by allowing us to net meter to
19 those utilities, what value does the utility place
20 on that? And are they losing money on the back
21 end?

22 One of my earlier presumptions on the
23 utilities, and I think this has changed somewhat,
24 is that the utilities buy -- every time somebody
25 turns on solar in the long run is losing money by

1 the loss of profit --

2 PRESIDING MEMBER GEESMAN: Yeah, I agree
3 with that. I actually --

4 MR. JOHNSON: -- or the ability of --
5 but I don't think that's necessarily true now.

6 PRESIDING MEMBER GEESMAN: Yeah, I'm
7 with Commissioner Peevey and his comments at the
8 solar conference in San Jose a couple of weeks ago
9 about the desirability of seeing the utilities if
10 they ever wake up to the opportunity of actually
11 investing some of their shareholder dollars in
12 these benign technologies, in contrast to the
13 system that we have now.

14 Now, I know the solar industry doesn't
15 always think that's the world's greatest idea, but
16 I don't think the utilities need to lose money on
17 any of this stuff.

18 MR. JOHNSON: Oh, I totally agree. I
19 think there's ways for them to go out and make
20 money. And I think, for example, PG&E working
21 through the CSI process and seeing the input and
22 what they deem to be the goals of what we're
23 trying to accomplish here, I think they've been
24 onboard. Although their behavior regarding the
25 rates and the time of use and now the RECs, I

1 don't know if that necessarily, you know, speaks
2 to that direction that they're trying to -- or
3 that they want us to believe that they're taking.

4 And I don't know what, you know, what
5 Judge Duda was actually thinking also when, you
6 know, she was coming up with this type of
7 decision.

8 I think that's pretty much it. But,
9 yeah, the financing, I really, I think I've made
10 comments in the past on the financing. I think
11 the real, one of the real untouched areas that we
12 haven't gone down is the financial market. And
13 getting Bank of America, Wells Fargo -- and I'm
14 not talking about credit cards, I'm talking about
15 institutional conventional financing for secured
16 loans for these things.

17 Because that's what's going to help the
18 builders out. Somebody use to call on builders,
19 you know, when I was selling mortgages back in the
20 '90s. You know, it was whatever I could do to
21 enhance that business. Like you said, what am I
22 going to do to get the portfolio bigger or loan
23 amounts bigger at World. And this has that
24 opportunity, but I think we need to focus on that.

25 PRESIDING MEMBER GEESMAN: Well, there's

1 one person out there. She's probably a trainee at
2 Wells Fargo or some leasing company, who will
3 become the Donald Trump or Michael Milkin of solar
4 leasing. We haven't identified her yet. She may
5 be on our distribution list, but we don't know who
6 she is.

7 MR. JOHNSON: Well, I don't know. I
8 provided you a name of some contacts and I'm
9 hoping that you guys are taking the initiative to
10 contact that individual and follow up with him,
11 because I think he could bring in some real
12 insight on the challenges of what it's going to
13 take to get conventional lenders and secured
14 lending involved in this type of program.

15 PRESIDING MEMBER GEESMAN: Thanks, Mark.

16 MR. JOHNSON: Thanks.

17 PRESIDING MEMBER GEESMAN: Jan
18 McFarland, Americans for Solar Power.

19 MS. McFARLAND: My name's Jan McFarland.
20 I'm Executive Director of Americans for Solar
21 Power. I'd like to start by thanking Commissioner
22 Geesman and Chairwoman Pfannenstiel, the Advisors
23 and Staff for their vision, commitment, hard work
24 and enthusiasm in keeping the PV program going
25 that last few years, and the new efforts, and the

1 new home partnership.

2 ASPV especially appreciates the open
3 process that you're afforded under the Warren
4 Alquist Act and the move toward increased data
5 availability.

6 I'd like to bring up four points today.
7 We'll make a filing tomorrow. If there's any way
8 we could have an extra day, but I suspect you're
9 on a very short timeframe.

10 PRESIDING MEMBER GEESMAN: Yeah, not
11 this time.

12 MS. MCFARLAND: Okay, never mind.
13 Anyway. Our four points that we'd like to make
14 today is incentives, IOU participation, REC and
15 thermal.

16 First, we do support a 2.60 incentive
17 for new homes. It is a soft market. I think it's
18 an interesting idea to add a kicker for a standard
19 feature, because that clearly is the goal of what
20 we're trying to do here at the Commission is have
21 solar be ubiquitous in new construction.

22 On IOU participation, and we will make
23 formal comments, but I have a few observations
24 here that I'd like to bring up today. One, and I
25 think, Commissioner Geesman, you brought this up

1 just now, is that there is a distinction between
2 ratepayer incentives and participation and
3 shareholder. And I don't know if, and I'd have to
4 look at your report more, are you suggesting that
5 the corporation will be investing in solar? Or
6 the ratepayers? I just see a distinction there.

7 In terms of overall policy I do caution
8 the Commission on utility participation because at
9 this point and at this juncture we do not have an
10 open or a transparent market.

11 The IOUs do have the data and the
12 competitive advantage over anyone that would enter
13 this new market. And at this point in time we
14 really have not evaluated in an open and
15 transparent process the costs and the benefits of
16 PV in the different regional systems. And I think
17 it's very important that we understand those kinds
18 of issues as we move towards, you know, the
19 ubiquitous solar goal, if you will.

20 PRESIDING MEMBER GEESMAN: Those that
21 feel that way I want to invite to figure out how
22 we're going to get solar on apartment buildings.
23 And I want to specifically challenge you and your
24 organization and others that are legitimately
25 concerned about the spectre of utility involvement

1 in what clearly is not an open and transparent
2 market. Tell me how you're going to get solar
3 installed in apartment buildings.

4 MS. MCFARLAND: Okay. You know, and I
5 also believe that the utilities, many of them have
6 very good intentions. And they're starting to
7 understand that PV has real value to the system.
8 Especially after this summer with the heat storms
9 and especially in the distribution area.

10 The best ASPV has been able to come up
11 with today is somewhere between 7 and 22 cents.
12 Those were very conservative numbers. But we
13 need, here again, to work within your act and get
14 the data out there for reasoned transparent
15 analysis. It's our belief that that's the only
16 way the market's going to really work.

17 On that point, SD Rio has had an
18 application in to the Commission under a PIER
19 grant proposal, to look at the benefits and costs
20 of PV in the San Diego region. And as far as I
21 know, no one's taken up this proposal. And I find
22 that a little disappointing because we do need to
23 roll up our sleeves and get busy on evaluating, in
24 an open and transparent way, the benefits and
25 costs of PV.

1 My second point would be on IOU
2 participation. And it's more of a policy thing.
3 It's just overall. And I'm not saying that they
4 couldn't, but in the past historically to date
5 IOUs haven't been stellar or phenomenal in their
6 approach to introducing new technology. That is
7 something that's really come through more the
8 private sector.

9 And so I add those two cautionary
10 illustrations, and we'll be more eloquent
11 tomorrow, hopefully.

12 In terms of REC ownership, the industry
13 put together a plan or a vision -- I really look
14 at it as a business plan with the ratepayers --
15 that we would decline incentives based on the
16 extension of the retail net metering and REC
17 ownership. And based on open and transparent
18 analysis.

19 So ten years out, in 2017, PV's
20 competitive with retail rates, and there's no
21 incentives, ratepayer incentives, required. And
22 that, I believe firmly, will happen as long as we
23 have that open, transparent market reasoned
24 analysis and program adjustment.

25 So, you know, we feel very strongly that

1 RECs are owned by the customer. Today customers
2 are paying at least 50 percent of the system
3 costs. Ten years out it's going to be 100
4 percent. And I also draw a distinction between is
5 it the utilities or the ratepayers that folks
6 could, not you, but another commission could
7 ascribe ownership to.

8 My last point relates to solar thermal.
9 I know you had a lot of work to do this year.
10 It's good to see the Title 24 credit be accrued to
11 solar thermal. I view that as a start. But I
12 think as next year we really need to get busy on
13 solar heating and cooling. The EU has a plan for
14 solar thermal that is 25 percent of the total
15 European Union CO2 credits.

16 So I do think, in light of AB-32, and in
17 light of climate change, that it would behoove the
18 Commission to spend some time on the value of
19 advanced solar thermal technologies, along with
20 heating water, as well.

21 And those are my comments.

22 PRESIDING MEMBER GEESMAN: Let me say on
23 solar thermal, because we discussed this with the
24 Public Utilities Commission at our last Energy
25 Action Plan meeting in I guess late September, the

1 perception was that SB-1 was not particularly
2 friendly to solar thermal. And that the
3 legislative process had scaled back pretty
4 significantly our hopes and aspirations for that
5 particular technology or program focus.

6 And I do think that those that disagree
7 with that outcome should focus on changing that
8 outcome in the Legislature.

9 MS. MCFARLAND: I agree that we need to
10 be very aggressive in the Legislature. I would
11 also say the prohibition from the gas distribution
12 rate -- solar cooling is electric, it's not gas.
13 And I would argue that part of the Commission's
14 function is to look at long-term policy and to
15 help influence the Legislature from an analytical
16 and substantive viewpoint. And I think you all
17 could do a lot to help us in the Legislature. But
18 I can promise you we'll be there next year.

19 PRESIDING MEMBER GEESMAN: Well, we
20 occasionally do rise to that challenge.

21 MS. MCFARLAND: I know you do. Thank
22 you.

23 PRESIDING MEMBER GEESMAN: Thank you,
24 Jan. Adam Detrick, PowerLight Corporation.

25 MR. DETRICK: Hi. Thank you for the

1 opportunity to provide comments. And we, too, at
2 PowerLight appreciate the open forum you guys are
3 conducting.

4 I'm up here mostly to echo the
5 sentiments that Mark Roper presented earlier; and
6 PowerLight will be a signatory on the comments
7 that he's submitting.

8 And just to quickly touch on three
9 aspects of that that we specifically support.
10 Number one, in regards to the certification and
11 listing of eligible components, we support the use
12 of the IEC 61215 standard for performance aspects.
13 But again are concerned that there's other aspects
14 of that standard that force manufacturers to have
15 multiple product variations.

16 And in the interest of limiting barriers
17 and timing to market, we'd like to just default to
18 the UL standard and just the performance aspects
19 of 61215, rather than some of those other elements
20 to it. Right now there's already an exception for
21 mechanical load testing, which we support.

22 The next point is specific to the
23 performance of the production modules, and it
24 seems to be a pretty hotly debated item.
25 Ironically enough, it was PowerLight that sort of

1 provided the initial recommendation that we go to
2 an average power mechanism. There's been a lot of
3 discussion amongst other manufacturers and some of
4 the engineering consultants with the California
5 Energy Commission that the concern is that that
6 process may be too cumbersome and difficult to
7 manage, perhaps adding more cost to the program
8 than it's actually benefitting anyone.

9 And given the fact that there are very
10 deliberate certification approaches in the
11 industry, both domestically and internationally,
12 that we feel those processes should be best left
13 to run their course and go through the proper
14 steps.

15 And in the short term providing the
16 minus 5 percent tolerance and reverting to the
17 modules nominal nameplate rating for the
18 calculator purposes, but not allowing anything
19 more than minus 5 percent is a significant step
20 forward in the industry and consistent with the
21 direction that it's going in now. And also
22 wouldn't be very disruptive to the module
23 manufacturers and would provide good
24 accountability for the consumers, as well.

25 One other item is more of a

1 clarification, maybe a question, on all the items
2 marked with a note number 7 on page 33 that says,
3 prior to January 1, 2008 this data may be provided
4 in accordance to ASTM or IEC. It's not clear
5 whether there also needs to be third-party
6 verification of that data, or whether that's self-
7 reported.

8 If there does need to be third-party
9 verification to back that up, we would request
10 that some amount of time be given to provide that,
11 given that getting some of this data from testing
12 certification agencies can often take up to six
13 months. So perhaps if there is a third-party
14 verification required, that it be, you know, maybe
15 till July 2007 or something.

16 PRESIDING MEMBER GEESMAN: Bill, can you
17 address that?

18 MR. PENNINGTON: All of this data was
19 intended to be supplied by an accredited
20 laboratory rather than go through a third-party
21 certification program.

22 MR. DETRICK: Okay. Our concern from
23 PowerLight is that we may not have the third-party
24 verification of some of these parameters available
25 by January, and we would hate to be disqualified

1 from the list given too short a lead time to
2 provide it.

3 MR. PENNINGTON: There's no proposal for
4 third-party verification certification.

5 MR. DETRICK: Oh, there is no? It's
6 self reporting?

7 MR. PENNINGTON: It's testing from an
8 accredited laboratory is what the proposal is. So
9 that was the A2LA requirement. And I heard
10 another proposal today for a European acceptable
11 accreditation organization.

12 MR. DETRICK: Okay, I believe we can
13 provide that.

14 MR. PENNINGTON: That would be
15 complementary to what we proposed.

16 MR. DETRICK: Okay. Okay. That is all,
17 thank you very much.

18 PRESIDING MEMBER GEESMAN: Thank you,
19 Adam. Oliver Koehler, Sun Power Corp.

20 MR. KOEHLER: Thank you, Commissioners
21 and Staff. I'm Oliver Koehler; I'm a Product
22 Manager at Sun Power for modules; and I appreciate
23 the opportunity to speak today.

24 First of all, commend the hard work
25 that's been done on the current draft for the new

1 solar home program and for the CSI. We think
2 there's a bright future in that and we hope to
3 actively help make solar part of the energy mix.

4 A few quick points on the current draft.
5 We support the intent to improve the quality
6 standards for the equipment going into the
7 California program. We think that having some of
8 the performance requirements for IEC is a good
9 thing.

10 I just think we have to be important we
11 look at the details in how those are done, that
12 they're accurate. Because a lot of these
13 standards initially are really seen to do kind of
14 a test into whether the programs works and have
15 not characteristically been used to then base
16 rebate levels. So we have to look and make sure
17 that some of those tests have the right kind of
18 sample sizes and can be accurate.

19 Secondly, we support the EPBB in
20 concept. It's very important, we think, to enable
21 the rebate be based upon a meaningful realistic
22 value of what the system can perform. And I think
23 it will also be good for the end customer so that
24 they kind of better understand that, and we kind
25 of get away from where we are now on DC power to

1 the current PTC rating, which is an approximation
2 of what actually the systems will do. And then
3 the actual power.

4 So, we'll be interested to see when the
5 beta tests come out and we can see how that is
6 calculated. We'll say that we hope that it's not
7 too complicated so that people can understand what
8 the calculations are.

9 Finally, I'd like to express a few
10 concerns on the performance of production modules.
11 I think the focus here on the current draft is
12 very well intentioned, but we really support what
13 Mark Roper earlier said, going to a negative 5
14 percent power tolerance we think would get us, in
15 a simplified way, improved quality in the
16 California market without having to do a lot of
17 onerous checking and certifying on the average
18 power.

19 PRESIDING MEMBER GEESMAN: Do you
20 envision being a signatory to their written
21 proposal?

22 MR. KOEHLER: Yes.

23 PRESIDING MEMBER GEESMAN: Good.

24 MR. KOEHLER: Yes. And we think a
25 plus/minus -- well, a minus 5 plus whatever will

1 enable -- will really force everyone to have the
2 distribution of their output be in the meaningful
3 range around the nominal, but will still allow
4 also people that want to be tighter to be tighter
5 if they want. And to market that down to the end
6 customer.

7 And with stating that that certification
8 is -- well, the UL certification will also offer a
9 certain compliance measure that manufacturers are
10 meeting that negative 5 plus tolerance. As well,
11 you know, in my mind I don't know anyone who
12 doesn't meet that when they say a product is X,
13 that they don't produce X.

14 I think one thing to think about though
15 is what are the factory measurements and how do we
16 insure that the factory measurements between
17 manufacturers are comparable. And you know, right
18 now people do use calibration models from
19 accredited labs, and that's an important step.
20 But that's an area that may be can be looked at to
21 make sure that those different labs are in synch.

22 And so anyways, those are my comments.
23 Appreciate your time. Thank you.

24 PRESIDING MEMBER GEESMAN: Thanks very
25 much, Oliver. Bruce Bowen, PG&E.

1 MR. BOWEN: Thank you. Good morning. I
2 guess I'll start with RECs.

3 (Laughter.)

4 PRESIDING MEMBER GEESMAN: Make my day.

5 (Laughter.)

6 MR. BOWEN: I can't speak to the legal
7 foundation or legal basis for a claim for RECs.
8 But I think our view is really pretty simple,
9 although the ultimate solutions might be somewhat
10 more complicated.

11 California has a customer-funded RPS
12 requirement. And our fear is pretty simple that
13 if the RPS could be met, or could somebody be met
14 by using unbundled RECs, our fear is that RECs
15 purchased from customers-owned generation that has
16 benefitted from subsidies, especially subsidies
17 with a green attribute, could create a risk of
18 double dipping or double paying for those green
19 attributes.

20 So our view is that all --

21 PRESIDING MEMBER GEESMAN: So we don't
22 have any better way to correct for that prospect
23 than to make your company the lottery winner?

24 MR. BOWEN: Well, lottery winner with
25 respect to counting the output from the systems

1 towards these state's RPS requirements, that's
2 correct.

3 Now, there could be, if there is a
4 solution to just taking all of the output from the
5 customer-owned generation, which has benefitted
6 from subsidies, there could be an allocation based
7 upon a comparison of the value of the green
8 attributes of the subsidies and the value of the
9 RECs. So that ultimately the DG customer could
10 have a choice, elect to receive a subsidy or
11 retain the ability to sell the renewable
12 attributes. But not both.

13 PRESIDING MEMBER GEESMAN: That would
14 cut the state's effort in about half. Didn't we
15 address this with QFs in the RPS program? We
16 counted the QF power, but didn't make you pay
17 additional for it?

18 MR. BOWEN: I think that's correct, yes.

19 PRESIDING MEMBER GEESMAN: We didn't
20 have to commandeer RECs from anybody.

21 MR. BOWEN: And I don't believe we're
22 talking about commandeering RECs; we're talking
23 about counting RECs towards our RPS requirements.
24 So that customers basically don't have to pay
25 twice, given the fact they've already subsidized,

1 to a degree, the investment in the renewable DG.

2 PRESIDING MEMBER GEESMAN: How many
3 times do they pay for their natural gas fuel cost
4 pass-through?

5 MR. BOWEN: I don't know. So I think
6 that's basically -- that has been our position. I
7 don't know that there will be -- I don't know what
8 decision might have come out, or proposed decision
9 might have come out.

10 As David mentioned, we're expecting a
11 decision or proposed decision in the CSI
12 rulemaking at the CPUC on the 14th. But we
13 believe as long as other customers are subsidizing
14 distributed renewable generation the renewable
15 output should count towards our RPS goals.

16 PRESIDING MEMBER GEESMAN: Well, you
17 probably ought then to be prepared to address in
18 your filings there that it looks like the two
19 programs are headed in different directions as it
20 treats the RECs. I can't see us providing any
21 legitimacy to what I do think is a commandeering
22 or a taking somebody else's property.

23 MR. BOWEN: We can address that in our
24 comments tomorrow, as well.

25 With respect to some other issues that

1 have been brought up today, I appreciate Rob's
2 comments on performance commitments and utility
3 administration. I think we can point to our
4 performance on the self-generation incentive
5 program as an indicator of our commitment to
6 meeting appropriate performance commitments; and
7 would be committed to supporting this program, as
8 well.

9 With respect to higher levels of
10 incentive, tier 2 incentive, we've been working
11 with Rob and we'll commit this month to continue
12 with the data analysis to determine what we
13 believe the right level of incentive could be,
14 based upon cost. And hopefully we'll get that
15 incentive as high as possible based upon the
16 analysis that we're doing.

17 There has been some comments about the
18 collapse, I guess for want of a better word, about
19 some of the new home market. Obviously there's
20 been a slowing of the market and some uncertainty
21 with respect to rules and energy efficiency and
22 solar market, as well.

23 But it's my understanding we've had 4000
24 new units committed this year that are EnergyStar
25 in our residential new construction program. So

1 that's usually about 5000 to 7000 a year, so
2 there's been some decline, but not a complete
3 reduction. So as EnergyStar issues become more
4 widely understood this should help with respect to
5 moving the program forward.

6 PRESIDING MEMBER GEESMAN: And how many
7 new homes have come into your service territory
8 say last year, the year before? What's a normal
9 annual total?

10 MR. BOWEN: Total new homes?

11 PRESIDING MEMBER GEESMAN: New homes.
12 I'm trying to benchmark the 4000 to 5000 against
13 some larger base.

14 MR. BOWEN: Well, it's obviously a much
15 larger number.

16 PRESIDING MEMBER GEESMAN: The number I
17 always hear is 200- to 250,000 statewide. But, --

18 MR. BOWEN: I think that's --

19 PRESIDING MEMBER GEESMAN: -- I've never
20 seen --

21 MR. BOWEN: -- a statewide number --

22 PRESIDING MEMBER GEESMAN: -- it broken
23 down PG&E service territory.

24 MR. BOWEN: I'm afraid I don't know.

25 MR. PENNINGTON: I would think maybe 60

1 percent of the 200,000.

2 MR. BOWEN: That's probably right.

3 PRESIDING MEMBER GEESMAN: Ever been to
4 Riverside or San Bernardino County?

5 (Laughter.)

6 MR. PENNINGTON: Maybe 50?

7 MR. BOWEN: Fifty or less.

8 PRESIDING MEMBER GEESMAN: Okay.

9 MR. BOWEN: And on rates, there have
10 been some comments about rates, as well. We're
11 working, we've had constructive discussions on our
12 rate design, and expect those to continue. We're
13 happy that the industry has intervened in our GRC,
14 and we're -- at least I'm optimistic or maybe I
15 should say cautiously optimistic that we'll have
16 much more, -- we'll have rates that will be
17 supportive of the solar initiative as a result of
18 this general ratecase.

19 PRESIDING MEMBER GEESMAN: Good.

20 MR. BOWEN: Thank you.

21 PRESIDING MEMBER GEESMAN: Thank you,
22 Bruce. Commissioner.

23 ASSOCIATE MEMBER PFANNENSTIEL: I just,
24 I have a couple, I think, more general
25 observations than questions. One is on utility

1 administration. The draft guidebook reflects the
2 fact that Commissioner Geesman and I, on balance,
3 believe that the utilities should be administering
4 the new solar homes partnership.

5 And our rationale for that, in case it's
6 not clear in the guidebook, is that we think that
7 right now there's a strong utility role in the
8 programs that are very close to the new solar home
9 partnership. And that is, for example, energy
10 efficiency programs, line extension programs, the
11 kind of activity that would put the utility in a
12 central place for being able to scale up to the
13 level we see this program eventually getting.

14 However, the other side of that is, of
15 course, some of the other issues we've heard today
16 and at other times. Primarily having to do with
17 assurance that the utilities are committed to the
18 success of the solar program.

19 I know there's some discussion back and
20 forth about whether the utilities lose money by
21 reducing sales. I thin most people understand
22 that that doesn't really happen. So it's not so
23 much a disincentive, but it's the other side of
24 that. It's making sure that there really is a
25 strong commitment on the part of the utilities to

1 make the solar program as successful as we fully
2 want the energy efficiency program to be, also.

3 And that definition of a commitment is
4 really, it's a hard thing to put forth. And I
5 think the idea of having performance standards and
6 assuring that the utilities meet those performance
7 standards is a way of assessing that, but it
8 doesn't -- it's not, in itself, an indication of
9 commitment.

10 I think PG&E has shown an interest in
11 working on this program, and I think Bruce's
12 involvement has been critical to that. Bruce,
13 you've stayed involved with us the whole way in
14 developing this. And I hope that you will
15 continue to do so, because I think that that's a
16 demonstration you've been able to work with both
17 our staff and I think the other members of the new
18 solar homes partnership advisory committee in
19 trying to resolve the issues.

20 I think, though, that as we move into
21 the actual implementation of this, once the new
22 year begins and we're hitting the ground running,
23 we're going to have a lot of opportunities to
24 demonstrate commitment. And I say this not just
25 to PG&E, but to the other utilities here, that

1 there are going to be a lot of questions coming
2 up. And we are -- a lot of opportunities to
3 demonstrate commitment. And we're looking to the
4 utilities to do exactly that.

5 The program requires bringing together
6 all of the different activities; and those
7 activities are going to be rate design, as well as
8 working with the builders. They're all part of
9 it. And we just have to find a way of resolving
10 the issues where we run into them.

11 I think the question of utility
12 investment or shareholder investment is an
13 important, but it's a separable issue. I think
14 that that's sort of a next-step question, are we
15 ever going to go there.

16 But right now, we have, through the
17 public goods charge money, we have investments
18 being made by shareholder, by customers, in this
19 program. And I think we all need to be responsive
20 to that.

21 I would just make one observation on the
22 RECs, and I think that this is something that's
23 going to have a lot more discussion in upcoming
24 days and weeks and months. And my observation is
25 I believe the state's program for mitigating

1 climate change assumes that we not only have a
2 successful RPS program, but that we have a
3 successful solar program. And I think to the
4 extent you are borrowing or using the RECs from
5 one to meet the other, we may end up being short
6 on where we're supposed to be going for climate
7 change activities.

8 I haven't gone back and looked at the
9 numbers on that. This is all something that I
10 think needs to get worked out, but needs to get
11 worked out relatively soon.

12 Thanks, Bruce.

13 MR. BOWEN: Thank you.

14 PRESIDING MEMBER GEESMAN: I guess the
15 one thing I'd add, Bruce, when you do file your
16 comments on the RECs, if you'd address why this
17 wasn't resolved by the Legislature. I mean I,
18 myself, consider it a fairly inventive effort on
19 the part of the utilities or whoever else promoted
20 this notion that the utilities should own the RECs
21 to avoid double paying by the customers, to me it
22 sounds an awful lot like the variation that your
23 company and others have made for years on net
24 metering.

25 And each time I see that argument raised

1 in the Legislature I see it swatted down. I
2 looked through SB-1. I don't see any mention of -
3 - and we really ought to commandeer the RECs and
4 give them to the utilities.

5 So, in your comments, tell me why this
6 Commission or our colleagues at the PUC really
7 ought to address a question of this scale and
8 scope when the Legislature's had the opportunity
9 to do that and has chosen to leave the situation
10 jus as it is.

11 MR. BOWEN: Okay. Thank you.

12 PRESIDING MEMBER GEESMAN: Thank you.

13 MR. PENNINGTON: I'd like to make a
14 couple of comments, if I could, --

15 PRESIDING MEMBER GEESMAN: Sure.

16 MR. PENNINGTON: -- about the new
17 construction, utility new construction programs
18 participation rates this year. A number of people
19 have commented that they're quite low. And Bruce
20 was mentioning that PG&E's participation is at
21 4000 already by mid-year, which is a little bit
22 down compared to previous years, but still quite
23 noticeable.

24 And comments were made that Edison's
25 participation was virtually nonexistent.

1 A big part of the problem related to the
2 utility new construction programs are EPA has
3 imposed very restrictive requirements onto the
4 California utilities' EnergyStar homes programs.
5 And those requirements have been perceived by the
6 building industry as being unreasonable. And the
7 participation has dropped off as a result.

8 Chair Pfannenstiel has written a letter
9 to Kathleen Hogan asking for some relief in
10 California on those very restrictive rules. And
11 we've had very good dialogue recently with the
12 person that's between Kathleen Hogan and the
13 manager of the program about having some more
14 reasonable provisions for a state that has such
15 advanced energy standards.

16 One of the reasons why Edison's
17 participation is so low is because they just
18 started this year. Their programs were very much
19 delayed and just got started in the last month or
20 two. They immediately out of the gate ran into
21 this problem with this new rules imposed by EPA,
22 and found like they couldn't get the program
23 going.

24 In contrast, PG&E has been running their
25 program the whole year and their first half of the

1 year rates have been strong. But at midyear the
2 rules changes with these more restrictive EPA
3 rules, and that's very much slowed them down.

4 But there's two things that's going on
5 here. We're making progress to get these rules
6 changed. And, you know, if I could predict, I
7 think we will get the rules changed.

8 And secondly, the new solar homes
9 partnership doesn't require the EnergyStar
10 participation. We're only requiring 15 percent,
11 which avoids the restrictive catch that is the
12 disabler in the EPA EnergyStar home program.

13 So there's no reason to expect that
14 we're going to have extremely low participation
15 rates with the proposal that we've made.

16 PRESIDING MEMBER GEESMAN: Thanks, Bill.
17 There was some allusion to some of those issues in
18 our first workshop, but that's very helpful.

19 Mike Keesee, SMUD.

20 MR. KEESEE: Good morning,
21 Commissioners, Staff, Advisors, everyone else.
22 Real quick, my name's Michael Keesee; I'm with
23 SMUD. I manage our zero energy homes program. I
24 think we're the only utility in the United States
25 that has a program like this.

1 As an outsider sort of looking in, just
2 a couple observations here. One, we strongly
3 support or the District strongly supports the idea
4 of combining high efficiency with solar. In fact,
5 we're going through an effort right now where
6 we're transitioning the zero energy homes program
7 to become our new construction program. And that
8 is based on the Building America standards of at
9 least 35 to 40 percent better than the current
10 Title 24 standards.

11 Our own experience working with builders
12 is that efficiency has never stopped the deal. In
13 particular, if you look at the current federal tax
14 credits available to builders, that it can
15 actually pay for the efficiency measures. I think
16 the task in front of us is to insure those tax
17 credits are extended.

18 The other thing is that from SMUD's
19 point of view, peak demand is what matters. If
20 anyone's seen my presentation, you know, repeat
21 after me, peak demand matters. In our work with
22 the National Renewable Energy Lab, they haven't
23 published the study yet, convinced us that this is
24 really the best way to go because they found that
25 by adding 2 kW PV to a very highly efficient home

1 we get more peak demand savings than we would if
2 we just added 4 kW to a Title 24 compliant home.

3 From our perspective that sort of seals the
4 argument.

5 The other thoughts that we would share
6 with you is some concerns, and I haven't heard
7 this, and I just have to say I've been out of
8 touch here for a little while, is about the
9 inspection or verification requirements through
10 the third-party inspector, and particularly the
11 shading analysis.

12 Again, we would just offer SMUD's
13 experience with that. And then I can understand
14 the concerns about getting onto a roof after a
15 roof has been put on, a new roof. And in
16 particular, the liability concerns associated with
17 having someone who's not covered by the
18 appropriate workmans comp or liability insurance
19 that most builder subcontractors have to carry, as
20 blocking the idea of not getting up on the roof.

21 I don't like getting on roofs, myself.
22 They're pretty scary places. Nonetheless, you
23 cannot do a real shading analysis unless you get
24 on the roof. And some way needs to be to figure
25 that out. And I'll just mention that shade is a

1 very insidious thing. It's everywhere, where you
2 least expect it. And we've experienced that at
3 SMUD, often very painfully.

4 My suggestion at this point would be to
5 look at doing the shade analysis before the solar
6 system goes on, because oftentimes the solar
7 system has to be marked out on the roof so that,
8 in particular where you have roof-integrated or
9 building-integrated solar modules, you have to be
10 sure that the roofers don't roof over that area in
11 advance.

12 The shading analysis could easily be
13 done at that point. It's much safer from the point
14 of view of getting on the roof. It's also you're
15 not damaging anything. You probably get the same
16 results that you would otherwise. To that extent
17 I would urge the rating industry to take a look at
18 their liability and workmens comp issues and cover
19 that part so that they become the same as the
20 other subcontractors out there. That would
21 probably go a long ways to dealing with that
22 issue.

23 But if you want to go down this path,
24 and I think it makes sense, you've got to do the
25 shading analysis right. You can't guess from the

1 street level. It's just -- you're just not going
2 to get the right numbers.

3 Thank you much.

4 PRESIDING MEMBER GEESMAN: Mike, how
5 does your program address solar thermal?

6 MR. KEESEE: We don't. We're an
7 electric utility. The way we could address it
8 would be that if electric water heating was
9 included in new developments. We currently in our
10 retrofit programs operate, as I understand it, a
11 fairly substantial rebate for conversion of
12 electric water heating and solar domestic hot
13 water.

14 But the Title 24 standards essentially
15 prohibit electric water heating except in areas
16 where it's not offered, which would be Rancho
17 Murietta. But that's not -- we've had very little
18 new home activity in Rancho Murietta at this
19 point.

20 The other thing I should mention is that
21 we've not focused on custom homes either in the
22 program I worked with to this date, anyway. We're
23 trying to address that on an individual level.

24 But certainly I would say that under our
25 program I think it would be flexible enough that

1 if someone wanted to put solar hot water in an
2 electric water heated area, it shouldn't be a
3 problem.

4 PRESIDING MEMBER GEESMAN: Thank you.

5 MR. KEESEE: Thank you.

6 PRESIDING MEMBER GEESMAN: Robert Scott.

7 MR. SCOTT: Yes, Commissioners, thank
8 you. I'm Robert Scott; I'm the Executive Director
9 of CHEERS, which is California Home Energy
10 Efficiency Rating Services. We're a HERS provider
11 who is -- the HERS raters are mentioned in the
12 third-party verification of the installation. And
13 we're in the process of looking at how this
14 affects us in extending our training,
15 certification and quality assurance programs to
16 this, that we also apply currently to Title 24 and
17 to EPA EnergyStar.

18 So we're just saying we're trying to
19 look how this is going to affect us in preparing
20 for this whole program.

21 Another issue that I just wanted to
22 address is with regards to the tier one energy,
23 and I also was hearing the numbers about how much
24 activity has been going on. I thought one thing
25 is we're preparing to implement the federal tax

1 credits for new construction which is a \$2000 tax
2 credit. That's 50 percent above IECC, which is
3 something more than 15 percent above Title 24. So
4 it's -- and there are certainly an interest in
5 that. So in addressing the issue of added energy
6 savings to that.

7 Just in recognizing that there have been
8 some issues with the EPA EnergyStar performance
9 reporting, I went out and I got our EnergyStar
10 reports for the first three quarters of this year.
11 And recognizing that some of these are from
12 previous years, previous commitments, for
13 instance, quarter one there were 3762 for
14 multifamily homes; 3129 single family homes;
15 quarter two 2586 multifamily; 3302 single family.
16 And in the third quarter, which we had 1829
17 multifamily and 1998 single family. So that
18 obviously reflects some of the issues that the
19 utilities have been seeing.

20 And this also is that there's 2001 Title
21 24 standards that are applied to this. But now
22 we're starting to see 2005 standards. So I just
23 thought it would be helpful in context to see what
24 kind of numbers we're seeing.

25 So, thank you.

1 PRESIDING MEMBER GEESMAN: Thank you
2 very much. I'm out of blue cards. Is there
3 anyone else that cares to address us? Sir.

4 MR. BROOKS: Bill Brooks with KEMA.
5 Commissioners, Staff and participants here today.
6 I'm one of those insidious engineers they were
7 referring to earlier who is working with the
8 Energy Commission to develop these requirements.

9 There has been some good discussion with
10 the manufacturers on these issues; and there's
11 been a lot of good back and forth. And I think
12 we're actually very close in our recommendations
13 versus their recommendations at this point.

14 I don't know that -- this afternoon
15 we're going to be talking about the guidebook, and
16 so maybe we can get into that in a little bit more
17 detail. But what we have tried to come up with is
18 something that is verifiable, that's information
19 that the tools that are being used by the program
20 can work with.

21 And so recently subsequent to what's in
22 the guidebook right now, we sent out to the
23 manufacturers an alternative recommendation from
24 the September guidebook, so the September
25 guidebook; then there was the October guidebook

1 written response, which followed PowerLight's
2 recommendation.

3 And so we pointed out the problems with
4 the PowerLight recommendation as far as the
5 administration of that and all. And so they are
6 apparently coming forward with this alternative
7 that Mark Roper presented.

8 And so our -- and that is somewhat in
9 response to an email that went out last Thursday
10 or Wednesday night about this whole issue.

11 And basically we were recommending that
12 rather than do what was in the September
13 requirement which is said that what would go into
14 the guidebook would be that the manufacturers
15 would guarantee that their minimum, or every
16 module that they manufactured would be the rating
17 or higher. That was certainly met with a lot of
18 consternation. That whatever their tolerance
19 level would simply be subtracted from their
20 nominal rating, so that any manufacturer could
21 come in with whatever tolerance they wanted to, up
22 to the maximum UL requirement of minus 10 percent.

23 And so that a manufacturer could then
24 bring a minus 10 percent module to the market.
25 They could bring a minus 5 percent module to the

1 market, a minus 3 percent, a zero percent. And
2 they would alternatively receive their respective
3 rebate based upon whatever tolerance they state.

4 And that enables them to, and part of
5 the discussion was, the module manufacturers want
6 to be able to differentiate their products,
7 essentially have maybe premium products that they
8 would make available, maybe for premium cost.

9 And those premium products, if they are,
10 in fact, premium performance, should receive a
11 premium rebate. And so how do you provide that
12 for the manufacturer and for the customer.

13 Five percent is certainly a nice
14 alternative to the original. And we've certainly,
15 I think, worked off of somewhat not polar
16 differences, they really weren't. It would be way
17 overstating to say that. I think we started out
18 fairly close and we're edging our way towards a
19 reasonable middle here.

20 But it does not necessarily remove the
21 problem of customers, larger customers receiving
22 the higher end of a particular lot because of
23 their buying power and things like that. Whereas
24 other customers may still be on the lower end of
25 that minus 5.

1 So, I have copies of this. Everyone
2 involved in those discussions was emailed this.
3 And apparently there has been some discussion that
4 us insidious engineers were not available to
5 comment on. But, anyway, I'd like to certainly
6 maybe in the afternoon session have a little bit
7 of discussion on that issue and see if we can
8 address -- get the manufacturers to help us
9 understand what their concerns are with this
10 particular proposal and see if we can just wrap it
11 up and come to the final resolution and move on.

12 PRESIDING MEMBER GEESMAN: Okay, thank
13 you.

14 MR. BROOKS: Thank you.

15 PRESIDING MEMBER GEESMAN: Anyone else
16 care to address us? Anybody on the telephone want
17 to talk to us?

18 UNIDENTIFIED SPEAKER: Yes, there's a
19 man by the name of David Bruder from Southern
20 California Edison.

21 PRESIDING MEMBER GEESMAN: Okay. David?

22 MR. BRUDER: Yes.

23 PRESIDING MEMBER GEESMAN: You're on.

24 MR. BRUDER: Oh, great, thank you. All
25 right. Well, I have actually several comments to

1 make and address some of the other comments that
2 were made. But I just wanted to start out by
3 reiterating Southern California Edison's interest
4 and commitment in assisting the CEC with the
5 administration of the program.

6 We are looking forward to an opportunity
7 to work with the CEC to establish our role as
8 appropriate, and the business terms around program
9 administration. Things such as from Rob Hammon's
10 comments, representing CBIA, performance
11 requirements such as time, turnaround time limit
12 for processing. We're certainly amenable to, you
13 know, a business arrangement where we would be
14 evaluated on our performance around that, and
15 compensated accordingly.

16 As stated, the energy efficiency
17 incentives for the tier 1 and tier 2 efficiency
18 packages, we are supportive of that. We have some
19 concern about the cost effectiveness as it's
20 calculated in the energy efficiency proceeding for
21 the tier 2 incentives. But we certainly will work
22 with the CEC and the industry to be supportive of
23 energy efficiency incentives and packages and
24 measures.

25 I can envision something like, you know,

1 in the interest of statewide consistency we would
2 go along with what the consensus is around those
3 packages; but continue to revisit that as we get
4 the time to do so.

5 The issue of REC ownership and RPS
6 credit for the utilities, I'm not the company's
7 subject matter expert on that topic. But my
8 understanding is that the ALJ issued a ruling
9 requesting proposals on methods to determine RECs
10 from distributed generation in July. Southern
11 California Edison submitted our proposal and our
12 position on that issue in August. And as far as
13 we know, as Bruce mentioned, the decisions
14 expected on that, or some ruling is expected from
15 the PUC on November 14th. But it's not clear
16 whether that schedule is still on track or not.

17 We would certainly be willing to
18 reiterate our position on the issue in our
19 comments back to the CEC tomorrow.

20 Just in general with regard to our
21 participation in residential new home energy
22 efficiency program, we did get a late start. It's
23 one of the programs that we have decided to
24 contract out to a third party. We now have that
25 third party onboard and are working on, you know,

1 getting -- on that program. We have always
2 supported energy efficiency for new home
3 development, and plan to continue to do so.

4 And that's it, actually; I appreciate
5 the opportunity to make the comments.

6 PRESIDING MEMBER GEESMAN: Let me ask
7 you a question, David. Among Rob Hammon's
8 comments he said he was speaking jointly for CBIA
9 on this one particular one. It was a
10 recommendation that we treat the incentives as
11 part of a statewide pool of dollars rather than
12 divide them by utility service territory.

13 How do you feel about that?

14 MR. BRUDER: Well, you know, my first
15 reaction is that that makes sense. You know, from
16 a practical standpoint if there are areas that,
17 you know, where builders are more inclined to put
18 solar in new homes, I think that makes sense.

19 You know, I guess the concern would be
20 around each utility's ratepayers' contribution to
21 the whole -- all the benefits of the program. But
22 I can't think of why we would necessarily not be
23 supportive of that.

24 I'm hoping that the funding levels for
25 the program, that we will be able to cover the

1 demand for the incentives as is currently
2 distributed. But, you know, of course I could see
3 that being revisited based on the demand anyway.

4 I don't know how we would set it up in
5 advance to work as a pool of funding, but it seems
6 like it could be reallocated by the CEC as demand
7 warranted.

8 PRESIDING MEMBER GEESMAN: Thank you.
9 Other comments? I see someone in the audience who
10 wants to address us.

11 MR. McALLISTER: Thanks for the
12 opportunity. My name's Andrew McAllister; I'm
13 Director of Operations from the San Diego Regional
14 Energy Office. And I just wanted to sort of get
15 in our pitch again, sort of, you know, at the risk
16 of sounding self-serving, that we feel that we can
17 administrate this program as well in our region.
18 And we have quite a bit of experience working in
19 the new homes area.

20 And apart from comments that we've
21 already submitted and they're on the record, I
22 would just say that, you know, there may be some
23 value that nonutilities can bring to this. You
24 know, we would be one of those, but there are
25 plenty of other ones potentially. The ability to

1 package energy efficiency programs with other
2 services to this sector isn't necessarily the
3 domain of the investor-owned utilities.

4 So we feel like we could actually, in a
5 way, promote this in a way that aligns very well
6 with what the state is trying to do with this
7 program. And, you know, we do recognize that the
8 sort of data limitations that Jan referred to are
9 definitely there. I mean as far as capturing the
10 long-term benefits on the distribution level and
11 at the utility level clearly a nonutility is at a
12 disadvantage in that over the long term. So there
13 would need to be obviously data sharing and
14 transparency in this regard.

15 But as far as implementing an effective
16 program, working with builders to make things
17 happen, I think there are organizations like ours
18 in various parts of the state that could help that
19 work.

20 So I just wanted to get that on the
21 record so that -- I'm not sure if this decision's
22 completely been made yet, but I wanted to just
23 sort of make the case. Thanks very much.

24 PRESIDING MEMBER GEESMAN: Well, let me
25 ask you, because I think the situation you're up

1 against, and don't speak to us about SDREO. I
2 understand the generic arguments.

3 But SDREO, you do say that you've have
4 experience in working with new homes. I want to
5 juxtapose that against the experience that SDG&E
6 has had in their line extension program and their
7 energy efficiency efforts directed to builders.
8 And tell me why I should weight SDREO's experience
9 more highly than what would appear to be
10 volumetrically much greater level of builder
11 contact that SDG&E has.

12 MR. McALLISTER: Well, we've had -- I
13 definitely understand that. They have the
14 existing programs, and we're very familiar with
15 those programs, too. I mean we work with SDG&E on
16 a lot of different levels, and would continue to
17 do so, you know, in any way we can.

18 And our educational and outreach
19 activities are a partnership with them. A lot of
20 things we do jointly that are sort of at least
21 partly under the umbrella of energy efficiency
22 programs. So we're on that team actually I would
23 say.

24 There obviously are a lot of initiatives
25 within SDG&E that we don't participate in, as

1 well. And I think that's what you're referring
2 to.

3 I guess it's sort of an apples-and-
4 oranges in a way, because they, you know, at
5 SDG&E, will do programs that are in the 80 percent
6 efficiency programs and we obviously won't be
7 involved in all of those.

8 But as far as our position in the
9 community we do have that sort of level of trust
10 that we developed over a long period of time that
11 allows us, and in our experience with Shea Homes
12 and some of the programs that deal with new
13 residential construction and solar energy, we've
14 seen that we get a very good reaction and a very
15 good participation.

16 And so working -- we really see the new
17 solar homes partnership -- as a critical component
18 of the new solar homes partnership is developing
19 these very concrete region-specific tools that
20 will allow a stakeholder process in a way to go
21 forward, to convince each person within that, you
22 know, supply chain, to do the right thing and to
23 move forward and to really get the economic
24 analysis done. Those are the sorts of things that
25 we feel like we do very well.

1 And obviously the utility has to be a
2 part of that. We wouldn't have it any other way.
3 But, I don't really -- I don't see it as really an
4 either/or, as much as, you know, a partnership
5 really.

6 PRESIDING MEMBER GEESMAN: Thank you.

7 MR. McALLISTER: Sure. Thank you.

8 PRESIDING MEMBER GEESMAN: Anyone else?
9 No one else on the phone?

10 I think we're done. I want to thank you
11 all for -- actually let me ask. We had a next
12 steps item on our agenda. Does someone want to
13 stand up and explain what the next steps are?
14 Sandy?

15 MR. MILLER: Commissioner, that was a
16 placeholder in case we wanted to get more into
17 program administration issues or anything like
18 that. So, it was simply an option on your part.

19 PRESIDING MEMBER GEESMAN: Okay. We'll
20 be adjourned then. Thank you.

21 (Whereupon, at 12:03 p.m., the Committee
22 workshop was adjourned.)

23 --o0o--

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